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The Medical Schools.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF SYDNEY.

[Prepared by Special Request by the Dean of the Faculty of Medicine.]

IN the Education Number of THE MEDICAL JOURNAL OF AUSTRALIA of March 27, 1920, Professor J. T. Wilson, F.R.S., Acting Dean of the Faculty of Medicine, contributed an account of the medical curriculum then in operation in the Medical School of the University of Sydney. In that article Professor Wilson not only indicated the various changes that had been made in the medical curriculum during the thirty-six years that had elapsed since the first curriculum was drawn up, but discussed the reasons why those alterations had been made and the principles which had guided those who were responsible for the changes. His remarks appear to me to be so fundamentally sound and correct that I feel I cannot do better than quote them by way of preface to the remarks I have to make regarding the changes in the curriculum subsequently made.

A period of approximately one generation has elapsed since the establishment of the Medical School of the University of Sydney.

As a teaching school it came into existence with the appointment of Dr. Anderson Stuart as Professor of Anatomy and Physiology thirty-seven years ago.

The early organization of the school was mainly his work and ever since he has presided over its control and development as Dean of the Faculty of Medicine. Thus the recent removal by death of Sir Thomas Anderson Stuart marks the end of an epoch of remarkable growth and progress due in great measure to his indomitable energy, his assiduous devotion to its interests, his large-scale ideas and his remarkable foresight.

It was natural that in its earlier phases of evolution the Medical School of the University of Sydney should have been organized largely on the lines of the Medical School of the University of Edinburgh, of which Professor Anderson Stuart was a most distinguished alumnus, and in which he began his career as a teacher. But Anderson Stuart was no mere copyist. He welcomed sound ideas from every source, and before long the Sydney School of Medicine began to exhibit a character

of its own in adaptation to its local circumstances, as well as from the introduction of features and methods not represented in the earlier tradition.

From the first, indeed, certain differences were present. The curriculum for the degrees in medicine and surgery nominally extended throughout a period of five years as against the four years which at that time constituted the normal medical course in the United Kingdom. But since the first year of the curriculum was identical with the first year of the curriculum in arts, the medical course proper was actually of only four years' duration.

It may be of some interest here to recall some features of the earliest Sydney Medical curriculum. This had been drawn up before the advent of Professor Anderson Stuart and appears in the University Calendar for 1883-4. Under this curriculum only two "professional" examinations were to be held, one at the close of the "third" (*i.e.*, the second genuinely medical) year and a final examination at the end of the course. Under this arrangement chemistry, botany and zoology were not disposed of until the end of the second (nominally third) medical year. Physiology and pathology were among the subjects of the final examination. The provisions of this curriculum, however, are of merely historical interest. It never became effective, as the new professor secured its early modification on the lines of the then existing Edinburgh course with its three professional examinations, a first including the preliminary sciences, a second including anatomy, physiology, *materia medica* and pathology, and a final including all the practical professional subjects.

It may also be noted that the early by-laws provided for four degrees, M.B. and Ch.B. as first degrees and M.D. and Ch.M. as advanced degrees. This provision also was never operative, the Edinburgh model being introduced according to which the Ch.M. degree was substituted for the Ch.B. as a first degree and the M.D. degree retained in the more ancient traditional sense as the higher degree for all branches of medical science. Edinburgh has since then altered its practice in the other direction.

Even as first modified under the influence of Professor Anderson Stuart, the earliest effective curriculum still retained the provision for a nominal five years' training, of which the first year was identical with the first year in arts.

This system gave place in 1889 to one which provided for a genuine five years' curriculum of purely scientific and professional character, this change antedating by several years the introduction of the compulsory five years' medical curriculum by the General Medical Council of the United Kingdom. With this change the previously compulsory first year in arts became alternative to a medical entrance examination of considerably higher standard than the ordinary matriculation examination. The year thus gained for the medical curriculum proper was largely devoted to a more thorough training in the fundamental branches of natural science, physics, chemistry and biology. The teaching of these subjects had till then been carried on alongside of that of human anatomy, physiology, surgery, *materia medica* and clinical work in the hospital, and without any such scheme of cooperation and correlation between the purely scientific and the more technical professional subjects as is being advocated at the present time.

At several times during the intervening period of 30 years or so, alterations of more or less drastic character have been introduced. On the whole, these alterations have represented improvements on the then existing system; some of them were dictated by the necessity for introducing new and further specialized teaching, as in the case of the subject of bacteriology; or by recognized changes in the relative importance of subjects already taught; or by the introduction of new and improved methods of teaching. Conspicuous changes in this latter direction were effected by the introduction of a much wider range of practical and laboratory instruction accompanied by a very great reduction in the number of systematic lectures. In the subjects of anatomy and physiology, for example, the systematic lectures were cut down by one half, whilst the practical laboratory work in physiology was largely expanded.

Nevertheless, in spite of many changes in detail, the general principles underlying the curriculum in medicine during a lengthy period have not until quite recently been seriously called in question.

These principles include the following:

(*a*) The requirements of proof of a standard of literary and general educational qualifications sufficient to warrant the bestowal of university degrees in medicine and surgery. It has constantly been maintained that such degrees ought to imply something more than the possession of mere diplomas of proficiency in technical training. To this principle the University of Sydney has thus far tenaciously adhered.

(*b*) The requirement of a preliminary period of training in the fundamental principles of pure natural science without necessary reference to their special application to the technique of medical and surgical procedure, and prior even to an acquaintance with the manifestations of these principles in the structure and working of the human body in health and disease. This requirement has been so far met, or at least attempted, by the devotion of the first year to the fundamental sciences of physics, chemistry and biology. Nor should this be taken to imply that the study of physics, chemistry and biology ends with the completion of this year. The study of anatomy, physiology, pathology and pharmacology are on the one hand the more advanced application of chemistry, physics and biology, whilst on the other hand they are, or ought to be, so studied as to provide a sound basis for the technical application of just the same principles in the diagnosis and in the prevention and treatment of disease.

(*c*) Therefore it is that the third period of preparation for the practical training of the future practitioner of medicine has been allocated to the acquisition of a thorough familiarity with the structure and working of the human body both in the state of health and as altered by disease and by the influence of environment, including the operation of drugs and other agents which affect organic structure and process.

(*d*) The fourth and final period in the training of the medical practitioner, according to the system embodied in the medical curriculum hitherto in vogue in most medical schools of repute, is that in which the medical student is brought into first hand contact with the clinical phenomena which are the expression and manifestation of those morbid processes and changes whose precise nature he has been taught to understand and appreciate.

The ideal of this period is complete absorption in clinical study assisted by such systematic and classificatory instruction as may facilitate diagnosis and interpretation of clinical facts and indicate the direction and methods of treatment. This will, of course, include all forms of manipulative and operative procedures, general and special. It also implies more or less specialized teaching in different sub-departments of medicine and surgery. And it will include all necessary instruction in forensic and in preventive medicine.

The validity of the logical order of the requirements corresponding to the four periods of training set forth above will hardly be challenged. But there is room for very wide divergence of opinion on the question of the degree of independence which it is advisable to preserve between the various phases of scientific and professional education for the degrees.

How far can the period of preliminary or pre-matriculation general education be made to include subjects at present reserved for the second period, consisting of the present first year of the post-matriculation curriculum? How far, if at all, may the subjects of the third period "(*c*)" be arranged to begin earlier and run more or less concurrently with those of the second "(*b*)," *i.e.*, the present first year work? And

above all, how far, if at all, should subjects at present restricted to the fourth "(d)," more definitely professional, period be begun and continued concurrently with the study of the scientific subjects which serve as its indispensable basis?

Hitherto the logical order of progression from training in general fundamental principles of physical and biological science, through a study of the more special applications of these principles in human anatomy, physiology and pathology, up to the study of the practical science and art of medicine and surgery, has been followed in the practical arrangement of the studies of the medical student. There has been something of a "clean cut" between the various periods specified. The completion of each period has culminated in an examination which has been taken to testify to the possession of scientific attainments necessary to the adequate understanding of the problems studied in the next succeeding period.

The system thus organized arose historically from a reaction against the somewhat anarchical conditions which prevailed under the system which preceded it. Senior practitioners will remember that there was no prescribed order of studies, although, no doubt, there was in practice some measure of uniformity. But there was nothing to prevent any subject in the curriculum being taken at any time and in any order. It was quite common to find students who had completed their attendance on the whole of the required subjects of the curriculum before they had passed any examination at all. Indeed, at a still earlier period the only examination was one held at the end of the course in all the subjects.

Further, the reaction against a chaotic arrangement of the studies in general was accompanied by a reaction against premature attendance on, and engrossment in, clinical work. This was a relic from the older days of medical apprenticeship. That such a system was compatible with medical training of a high order, the lives of many great men afford ample testimony. But there were enormous disadvantages, especially for the less gifted and the rank and file generally. Absorption in practical empirical details of clinical work and of hospital administration, as well as in the merely human interests of the "cases," at a time when the student is incapable of understanding and appreciating the phenomena either of health or disease by lack of physical and biological knowledge, was certainly gravely prejudicial to real progress. The average student was induced to think of himself as a doctor at a time when his entire energies should have been concentrated on the facts and phenomena of elementary science. The value of the comparatively slight and wholly empirical clinical information thus gained was entirely incommensurate with the value of the time spent in acquiring it and its vivid human interest was a positive menace from its undoubted tendency to attract the student away from the study of basic principles and phenomena.

These are some of the considerations which weighed with medical educationalists when they reorganized the medical curriculum a generation ago by introducing the principle of a graduated progression from stage to stage, sanctioned by examination certificates of competence for each successive period.

It was with open eyes that they accepted the corollary of a comparatively late entry upon actual clinical work, believing, as they did, that really effective clinical experience was only possible to those who had already attained an understanding of the structure and working of the normal human body.

There was no blindness to the fact that the clinical period remaining was all too short. But there was a justifiable scepticism as to the value of precocious clinical attendance before the foundations of effective clinical experience had been well and truly laid. Three months added on at the end of the available clinical curriculum might well be worth twelve months gained by entering wards with insufficient basic training.

This is not the place to carry further the discussion of the validity of the principles which have determined the form of the medical curriculum at present exemplified in the University of Sydney. It may suffice to say, firstly, that although there are manifold variations among the curricula of medical schools within the Empire, there is, for the most part and up till now, a general resemblance of type and of underlying principle among them; secondly, there is now a growing tendency to call in question the wisdom of those provisions of our curricula which, in recognizing the principle of gradation from stage to stage, introduce (in varying degree in different schools) the expedient of the "clean cut" between successive stages of training. In place of what may be called a "horizontal" cleavage into years of curriculum periods, proposals are now being discussed for what may be called "vertical" cleavage throughout the entire curriculum, into certain subject areas within each of which something of an independent scheme of graduated teaching may be worked out. And with this is associated a tendency to revert to the earlier practice of more precocious clinical teaching.

There is much to be said on both sides of the question. The time is undoubtedly ripe for curriculum revision. But it must never be forgotten that the defects of the actually existing system are certain to be far more obvious to the critic than those which implicitly lurk in the system devised to supersede it. It is not difficult to point to existing weaknesses and it is relatively easy to introduce provisions which will obviate just these particular defects. But it is not so easy to be certain that in radically altering a complex system, new weaknesses or defects incidental to the new reforms may not be inescapably involved.

Since Professor Wilson's article appeared in this journal of March, 1920, the medical curriculum of the University of Sydney has been altered twice.

The Faculty of Medicine, holding the view expressed by Professor Wilson that "in the curriculum in force up to 1920 the period devoted to clinical study was all too short," determined to remedy this defect. Accordingly in 1921 they recommended to the Senate that the curriculum of five years then in force should be altered by adding to it two extra terms for clinical instruction. By this change to which the Senate agreed, the period devoted to clinical studies was increased from two years and two-thirds to three years.

This curriculum was only in force for two years when the General Medical Council of Great Britain issued new regulations which came into operation in January, 1923. As graduation in medicine in the University of Sydney entitles the holder of the degree to registration as a legally qualified medical practitioner in the United Kingdom on a special register of the General Medical Council and as the maintenance of this status before the General Medical Council of Great Britain and Ireland involves the obligation on the part of our Medical School to conform to the Council's requirements for such registration, the Faculty of Medicine in 1923 was again called upon to make alterations in the curriculum so that it would meet with the requirements of the General Medical Council. The extension of the curriculum to six years is the outcome of the Faculty's recommendations to the Senate which were agreed to by that body on July 2, 1923.

The changes made in the previous curriculum were numerous and important. They include those

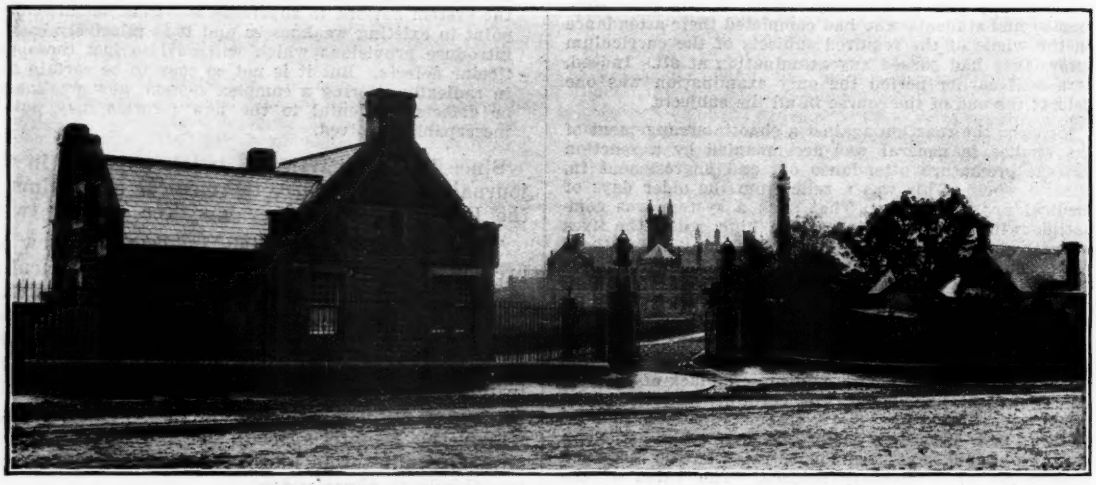
made to conform to the requirements of the General Medical Council and those made so that the training of our medical students will be more efficient. The curriculum was lengthened by the addition of one term, so that the course of study extends over a period of six years. The extra term in the third year is devoted to additional study in the subjects of anatomy, physiology and pharmacology. Almost all the requirements of the General Medical Council were already provided for in the 1921 curriculum. The council, however, demanded that before registration as a student or commencement of the regular medical curriculum every person shall be required to pass (in addition to an approved examination in general education) an examination or examinations conducted or approved by one of the licensing bodies in the following subjects: (i.) Physics (theoretical and practical), including the elementary mechanics of solids and fluids, the elements of heat, light, sound, electricity and magnetism; (ii.) chemistry (theoretical and practical), the elements of the science.

To meet the requirements of the General Medical Council the University of Sydney has not found it necessary to alter the matriculation standard which has hitherto worked satisfactorily, but now demands of first year medical students a certificate satisfactory to the University authorities showing that they have received instruction and passed an examination in both physics and chemistry. Those students who have passed the matriculation examination required for medical students, but who have not had the opportunities of studying chemistry and physics before entering the University, after attending courses of instruction in these subjects at the University for two terms, are required to pass an examination in chemistry and physics at the end of Trinity term of the first year of medicine. Those who fail to pass this examination, are not permitted to present themselves for the first degree examination in medicine. If they wish to pursue their medical studies, they must again present themselves for examination at the end of Trinity term of the following year.

The following time table shows the courses of study for the various years according to the present curriculum.

Candidates for the degree of Bachelor of Medicine and Bachelor of Surgery shall attend the following course of instruction:

1. In the first year—
   - Botany, including laboratory practice;
   - Chemistry (inorganic and organic), including laboratory practice;
   - Physics, including laboratory practice;
   - Zoology, including laboratory practice.
2. In the second year—
   - Anatomy, three terms;
   - Dissections, three terms;
   - Practical histology, 80 hours;
   - Physiology, including laboratory practice, three terms.
3. In the third year—
   - Dissections, three terms;
   - Anatomy, including applied anatomy, three terms;
   - Physiology, including laboratory practice, three terms;
   - Pharmacology, including laboratory practice, two terms.
4. In the fourth year—
   - Pathology and bacteriology, including laboratory practice; three terms;
   - Surgery, including an introductory course, two terms;
   - Medicine, an introductory course, one term;
   - Hospital practice, including tutorial surgery and tutorial medicine;
   - Clinical surgery; two terms.
5. In the fifth year—
   - Medicine, two terms;
   - Surgery, one term;



University of Sydney.—North Gate, Showing the Medical School.

Obstetrics, one term, and obstetrical practice with tutorial instruction, demonstrations and clinical lectures at obstetrical hospitals;
Gynæcology, 30 lectures;
Therapeutics and *materia medica*, one term;
Practical pharmacy, 20 hours;
Medical jurisprudence, 20 lectures;
Hospital practice;
Clinical medicine; three terms;
Clinical surgery, one term.

6. In the sixth year—

Diseases of children, including clinical lectures and hospital practice at the Royal Alexandra Hospital for Children;
Diseases of the skin;
Diseases of the ear, nose and throat;
Diseases of the eye;
Psychiatry, 30 lectures with demonstrations;
Clinical pathology and biochemistry;
Public health and preventive medicine, 50 lectures;
Medical ethics, military administration and military surgery;
Hospital practice including instruction in infectious diseases at the Coast Hospital.

That part of the time table indicating the courses of instruction for the fifth and sixth years is at present under review; the final arrangements of subjects for these years have not been quite settled.

University of Sydney.—East Door of the Medical School.

Reference has already been made to important changes in the curricula of 1921 and 1923. They may be more fully detailed. The study of anatomy, physiology, histology and pharmacology extends over two years—six terms—instead of one year and two-thirds—five terms. Histology has been transferred to the Department of Anatomy; previously it formed part of the instruction in physiology. This change is in accordance with the practice that prevails in most medical schools. Students do not begin their hospital practice until the beginning of the fourth year.

The study of pathology and bacteriology begins in Lent term of the fourth year and extends throughout the year.

Introductory courses in medicine as well as surgery are given in the fourth year.

Instruction in tutorial medicine is given at the end of the fourth year. Of the subjects of instruction for the two final years, the chief changes have been made in obstetrics, diseases of children, psychiatry and preventive medicine.

Obstetrics.

Owing to the greatly increased number of medical students in the University clearly shown in the graph published in Professor Wilson's article, which was a feature of the war period and of the years since the war, and because the number of beds in the obstetric hospitals where clinical instruction in practical obstetrics is given had not increased in proportion to the increase in numbers of the students attending these hospitals, it was not found possible to give that additional practical instruction in practical obstetrics which the Faculty of Medicine felt was necessary.

Up till the year 1921 the curriculum in force required that the student of medicine should receive practical instruction in obstetrics for a period of three weeks, during which period he was in residence at one of the three recognized obstetric hospitals, and before sitting for the final examination he had to produce evidence of attendance upon twelve cases of labour. In 1922 he had to produce evidence of attendance on twenty cases of labour.

At the end of the year 1922 the Senate (on the recommendation of the Faculty of Medicine) appointed one tutor in obstetrics to each of the three recognized teaching hospitals and the period of instruction in practical obstetrics was increased to six weeks. The duties of the tutors were mainly to give instruction in the methods and means used in the diagnosis of firstly normal and abnormal pregnancy and secondly normal and abnormal labour. This tuition was given in the three weeks immediately preceding the student's period of residence in hospital and it enabled him to derive the fullest possible benefit from his later clinical instruction. At the same period more organized clinical instruction was arranged for and given by the members of the honorary medical staff of the various hospitals.

During the year 1924 the Faculty of Medicine recommended that the period of training of the student in clinical obstetrics be increased to

ten weeks, which was to be divided up as follows: (i.) Three weeks' tutorial instruction as mentioned above; (ii.) three weeks in residence with clinical instruction; (iii.) three weeks' attendance at the pre-maternity and post-maternity out-patients' departments; (iv.) one week's refresher course in residence in hospital to be taken from three to six months after the nine weeks' course mapped out above.

Recently the late lecturer in obstetrics was appointed Professor of Obstetrics and the Senate of the University of Sydney has decided to appoint a lecturer in clinical obstetrics and a demonstrator in operative obstetrics at each of the two larger teaching hospitals.

With these new appointments a more complete and better organized system of instruction in clinical obstetrics will ensue.

clinical instruction of medical students. As a result each student of medicine, in addition to attendance at a short course of lectures on diseases of children delivered at the University, will be required to attend the Royal Alexandra Hospital for Children for a period of six weeks to receive instruction in the medical and surgical diseases of children at the bedside and by means of clinical lectures, compulsory attendance and the like.

Compulsory attendance at the Royal Alexandra Hospital for Children will begin in the year 1927. For some time with the consent of the governing authorities of the Royal Alexandra Hospital for Children our students have attended the practice of this hospital for limited periods during their fifth year. With the extension of the curriculum into the sixth year it will now be possible for all students to receive a thorough training in the important subject of diseases of children.

Royal Prince Alfred Hospital.

Psychiatry.

The Senate established a Chair of Psychiatry in 1922 and appointed Sir John Macpherson, K.B.E., M.D., F.R.C.P., as first Professor of Psychiatry. All students of medicine will now be required to attend a course of thirty lectures and a proportional number of practical demonstrations in psychiatry during the sixth year.

Diseases of Children.

During this year (or last year) in accordance with the request of the Directors of the Royal Alexandra Hospital for Children and on the recommendation of the Faculty of Medicine, the Senate agreed that the Royal Alexandra Hospital for Children should be recognized as a hospital for the

Public Health and Preventive Medicine.

During recent years these subjects have attracted much attention and their importance has been stressed again and again. The General Medical Council has directed "that instruction should be given in the courses of forensic medicine and public health or otherwise on the duties which devolve upon practitioners in their relation to the State and on the generally recognized rules of medical ethics" and further "that throughout the whole period of study the attention of the student should be directed by his teachers to the importance of the preventive aspects of medicine." A thorough and extended course of instruction by means of fifty lectures and demonstrations has been delivered in

the subjects of public health and preventive medicine. In the teaching throughout the whole curriculum the preventive aspects of disease are continually being emphasized. It will thus be seen that the University has been alive to the great importance of preventive medicine.

Clinical Pathology Including Biochemistry.

It must be admitted that instruction in clinical pathology hitherto has not been as efficient as it should have been. It will be seen, however, by reference to the table giving the courses of instruction required of all candidates for the degrees of Bachelor of Medicine and Bachelor of Surgery that this defect in the previous curricula has not been lost sight of. Provision is now made for a special course of instruction in clinical pathology and biochemistry. The details of this course of instruction have not yet been decided, but it will be on the lines of those already in operation in the great medical schools of Great Britain.

Some alterations will be made in the courses of instruction in the special subjects, namely diseases of children, of the eye, ear, throat and nose and skin by way of extension. But in other respects considerable changes have been effected.

The Senate on the recommendation of the Faculty of Medicine approved that attendance at instruction in all these subjects should be compulsory and that each student at the end of the curriculum should be required to pass a satisfactory examination in them. This is a great advance, when it is considered that heretofore attendance was only compulsory on two of the special subjects and that no examination in them was required.

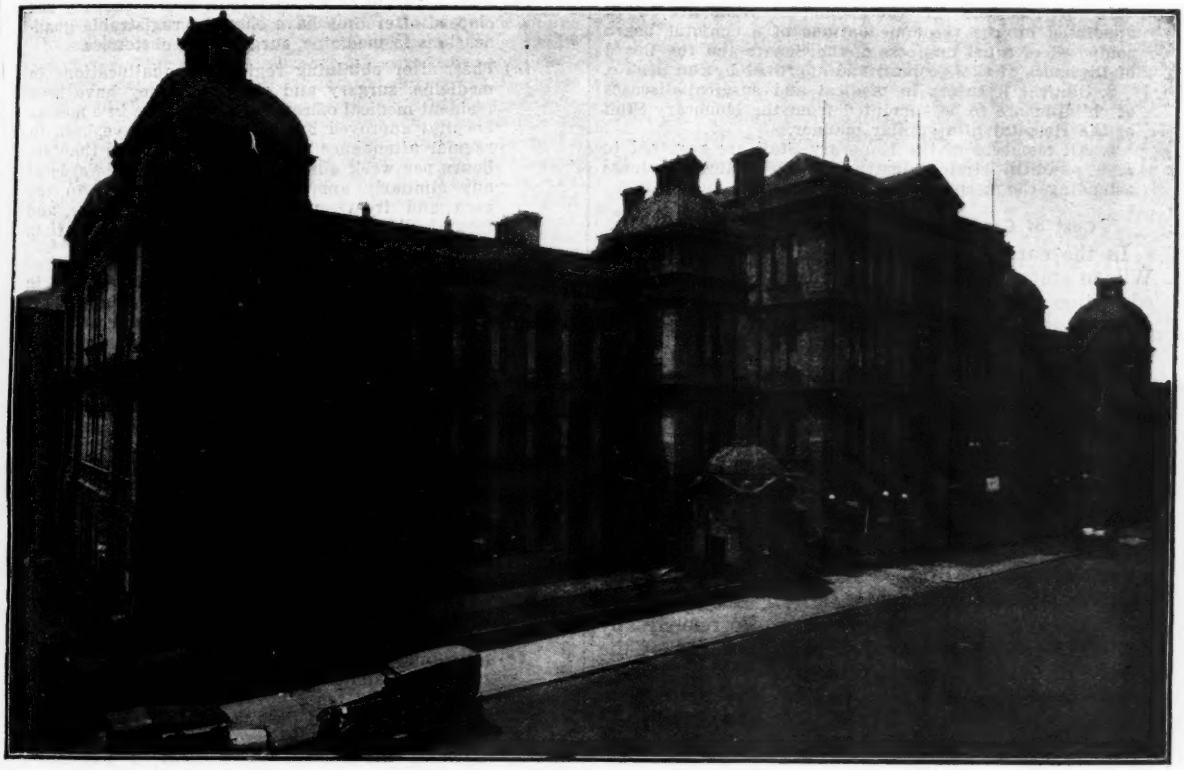
Saint Vincent's Hospital: A Clinical School.

In order to relieve the strain on the teaching resources of the two hospitals recognized for clinical instruction resulting from the overcrowding of the Medical School, the Senate approved the recommendation of the Faculty of Medicine that Saint Vincent's Hospital should be recognized as a hospital where medical students could obtain clinical instruction under the following conditions:

1. All the members of the Honorary Staff of Saint Vincent's Hospital to be appointed by the Mother-General on the recommendation of an Advisory Board appointed by the Senate.

2. The recommendation of the Advisory Board to be approved by the Senate.

3. Clinical lecturers in medicine and surgery and tutors in medicine, surgery and anæsthetics to be appointed from members of the Honorary Staff by the



Sydney Hospital.

Mother-General on the recommendations of the Advisory Board approved by the Senate.

4. Practical instruction to be given to students in the various branches of clinical medicine and surgery by the members of the Honorary Staff.

The recognition of Saint Vincent's Hospital has provided increased facilities for clinical instruction, but it has had other effects equally important. The status and the efficiency of Saint Vincent's Hospital will be greatly increased by the fact that it is now a teaching hospital. In consequence of this the gain to the community will be very great indeed.

The Royal Alexandra Hospital for Children has also become a recognized hospital for clinical instruction of medical students, subject to the following conditions approved by the Senate and the Board of Directors of that Hospital:

1. The members of the Honorary Staff are to be appointed on the recommendations of a conjoint board composed of equal numbers of the Senate and the Board of Directors of the Hospital and approved by the Senate.
2. Clinical lecturers in medical and surgical diseases of children are to be appointed from the Honorary Staff of the Hospital in a similar manner.
3. All members of the Honorary Staff are required to give practical clinical instruction to medical students attending the hospital.

Cost of Graduation in Medicine and Surgery.

In the curriculum in force in 1920, Professor Wilson stated "that the total minimal fees paid for education and graduation in medicine and surgery amount to £160." Since that time owing to the inclusion of additional subjects in the extended curriculum, the increase of hospital fees, fees for material used and graduation fees, the cost of graduation in medicine and surgery is now not less than £235.

The fee for the doctorate of medicine or the Master of Surgery is now £20.

Awards of Honours at Graduation.

Alterations have been made in the methods of awarding honours at graduation. The previously existing methods were found to lead to some degree of injustice in individual instances. To remedy any semblance of injustice, the Senate approved of the recommendations of the Faculty that award of honours at graduation should be dependent upon the aggregate number of marks obtained at all examinations from the first to the final degree examination.

Alteration in Dates of Examination.

In the present extended curriculum there will be six degree examinations. Each examination will take place in December with deferred examinations in March for those whose failure was not too serious. This arrangement will obviate the difficulties and disadvantages that resulted when students failing to pass an examination which was held in August, attended instruction in subjects of another year before passing their deferred examination in the following March.

Diploma in Psychiatry.

In addition to the Diploma in Public Health and the Diploma in Tropical Medicine issued by the University of Sydney a Diploma in Psychiatry is now to be obtained under the following conditions:

41. A diploma entitled "Diploma in Psychiatry of the University of Sydney" may be awarded to candidates who have satisfied the conditions of the following by-laws. The diploma shall testify to the candidate's proficiency in the branches of study, scientific and practical, which are concerned in the medical treatment of diseases of the mind.

42. An examination in psychiatry and the branches of knowledge which specially relate thereto shall be held from time to time at such times as the Senate shall appoint and shall be called "the examination for the Diploma of Psychiatry."

43. Candidates for the Diploma in Psychiatry shall produce evidence satisfactory to the Senate:

(*a*) That they are qualified medical practitioners registered by the New South Wales Medical Board.

(*b*) That a period of not less than twelve months has elapsed after they have obtained registrable qualifications in medicine, surgery and obstetrics.

(*c*) That, after obtaining registrable qualifications in medicine, surgery and obstetrics, they have been resident medical officers for six months in a mental hospital approved by the Senate or have been in regular attendance at the rate of not less than six hours per week during term time in the wards of any similarly approved hospital devoted to the care and treatment of functional nervous and mental diseases for a period of not less than twelve months.

44. That, after obtaining registrable qualifications in medicine, surgery and obstetrics, they have attended the following courses of lectures and demonstrations, *videlicet*:

(*a*) Psychology.—Fifteen systematic lectures and ten demonstrations of two hours each in special practical psychology (thirty-five hours).

(*b*) Anatomy and physiology of the nervous system.—Ten lectures and ten demonstrations of two hours each (thirty hours).

(*c*) Neurology.—Ten lectures and ten clinical demonstrations in the wards of a general hospital (twenty hours).

(*d*) Pathology of the nervous system.—Ten lectures and demonstrations of not less than two hours each, with special reference to microscopic anatomy; biochemical methods and the chemical examination and estimation of certain clinical symptoms (twenty hours in all).

(*e*) Psychiatry.—Ten systematic lectures in advanced psychiatry and in addition five lectures in mental deficiency and ten clinical demonstrations in the wards of a mental hospital or psychiatric clinic, provided that candidates must have previously attended the courses of lectures in psychiatry delivered to medical students in the sixth year of the curriculum or an equivalent of such course (twenty-five hours).

45. That they have passed written, clinical and *viva voce* examinations in psychiatry and neurology, a written and a practical examination in psychology and in the anatomy and physiology of the nervous system and a practical examination in pathology.

The courses of instruction shall be held during two terms in each year as required. Candidates who are unable to attend all the lectures and demonstrations in these two terms, may with the approval of the Dean of the Faculty of Medicine take the remainder in subsequent terms, but all the courses must be completed and the candidate must present himself for examination within a period of six terms.

In 1924 the Diploma in Psychiatry was awarded for the first time.

Degrees Conferred at Graduation.

Heretofore candidates who had passed all the examinations to the satisfaction of the examiners, were recommended to the Senate for admission to the degree of Bachelor of Medicine and to the degree of Master of Surgery, if they so elected. The Faculty believing that the degree of Master of Surgery should only be conferred after the candidate had advanced to a standard of knowledge in surgery equivalent to that required for a doctorate in medicine recommended that at graduation the degree of Bachelor of Medicine and the degree of Bachelor of Surgery be conferred. This necessitated alterations in the by-laws as follows

16. Candidates for the degree of Doctor of Medicine shall submit a thesis not already presented as a thesis for any degree on any branch of knowledge comprised in the degree examinations for the degrees of Bachelor of Medicine and Bachelor of Surgery excepting subjects which are exclusively surgical. Each candidate shall be required to pass an examination in clinical medicine or in such special departments of medical science or practice as may be selected by the candidate and approved by the Faculty. The examination in clinical medicine shall consist of a report and commentary on at least three medical cases. There shall also be a *viva voce* examination. The Faculty may by resolution exempt a candidate from the examination.

17. The degree of Master of Surgery shall not be conferred until the expiration of two academic years from the granting of the degree of Bachelor of Medicine and Bachelor of Surgery.

18. Candidates for the degree of Master of Surgery must produce evidence that after having obtained the degrees of Bachelor of Medicine and Bachelor of Surgery they have spent at least two years in the study or practice of surgery.

19. Each candidate for the degree of Master of Surgery shall submit a thesis not already presented as a thesis for any degree on any branch of knowledge comprised in the degree examination for the degrees of Bachelor of Medicine and Bachelor of Surgery having a special application to surgery.

20. Each candidate for the degree of Master of Surgery shall be required to pass an examination in the following subjects: General surgery, surgical anatomy and pathology, operations upon the dead body, clinical surgery and such special departments of surgery selected by the candidate as the Faculty may approve.

The examination in clinical surgery shall consist of a report and commentary on at least three surgical cases. There shall be also a *viva voce* examination. The Faculty may by resolution exempt a candidate from any part of the examination.

21. The thesis for the degree of Doctor of Medicine and Master of Surgery shall embody the results of an original investigation in the branch of knowledge selected or shall record the results of observations made during professional practice. Six printed or typewritten copies of the thesis must be transmitted to the Registrar at least two months before the date fixed for the examination. The examiners may, if they think fit, require the candidate to present himself for oral or other examination on the subject matter of his thesis.

Establishment of New Chairs.

Since the education number of this journal appeared in March, 1920, additional professorial chairs have been established in medicine, surgery, psychiatry and obstetrics. Associate Professors have been appointed in physiology and anatomy.

In the Medical School there are now seven professors and two associate professors.

Post-Graduate Study.

That the University has not been unmindful of the value of post-graduate study for its medical graduates is shown by the fact that during the last four years three courses of instruction for graduates in medicine have been delivered.

The first course was held in 1922 and extended over a fortnight. The following lectures and demonstrations delivered and held at the three courses indicate the scope and character of the instruction.

In 1923 the inaugural lecture was delivered by myself. During the first week the late Dr. George E. Rennie lectured on cardio-vascular diseases, Dr. S. A. Smith on respiratory diseases, Professor F. P. Sandes on acute abdominal diseases, Dr. J. Macdonald Gill on medical diseases of children, Dr. R. B. Wade on surgical diseases of children, Dr. H. Hamilton Marshall on diseases of the digestive system, the late Sir Herbert Maitland on the operative surgery of the large bowel, Dr. George Armstrong on acute pelvic infections and Dr. H. J. Ritchie on cardio-vascular diseases. During the second week Dr. C. E. Corlette lectured on the principles of treatment of fractures of the lower limb, Dr. E. W. Fairfax lectured on respiratory diseases, Dr. Gordon Craig lectured on modern aspects of urology, Dr. C. B. Blackburn lectured on diseases of the blood and the late Dr. W. F. Litchfield lectured on infant feeding with the assistance of Dr. Margaret Harper. Demonstrations were given in the wards and operating theatres of the Royal Prince Alfred Hospital, of the Sydney Hospital and of the Children's Hospital. There were special demonstrations by Professor D. A. Welsh, Dr. A. H. Tebbutt and Dr. Keith Inglis in pathology, by Dr. J. G. Edwards and Dr. H. R. Sear in radiology, by Dr. H. J. Marks in otology, rhinology and laryngology and by Dr. M. Lidwill and Dr. S. A. Smith in the administration of anæsthetics. Lastly there were demonstrations at the Tuberculosis Dispensary and at the Venereal Diseases Clinic of the Royal Prince Alfred Hospital.

In 1923 the lectures included one on the aspect of cardio-vascular disease by Dr. H. J. Ritchie, one on the pathology of cardiac disease by Professor D. A. Welsh, one on the medical aspect of renal disease by Dr. Sinclair Gillies, one by myself on glycosuria and its treatment, one on rheumatic heart affections in children by Dr. J. Macdonald Gill, one on infant feeding by Dr. Margaret Harper, one on abdominal emergencies in children by Dr. R. B. Wade, one on the physiological aspects of respiration in relation to clinical work by Professor H. G. Chapman and Dr. S. A. Smith, one on the medical aspect of digestive disease by Dr. C. B. Blackburn and Dr. H. R. Sear, one on the surgery of the

gall bladder and bile duct by Dr. J. Morton, one on the surgery of the stomach by Dr. J. L. McKelvey, one on pitfalls of gynæcology by Dr. Fourness Barrington, one on indications for septic operations by Dr. S. H. MacCulloch, one on the medical aspect of life insurance by Dr. R. Scot Skirving and one on the surgical aspect of renal disease by the late Sir Herbert Maitland. Demonstrations were held at the Royal Prince Alfred Hospital, the Sydney Hospital, the Royal Hospital for Women, Paddington, the Women's Hospital, Crown Street, the Royal Alexandra Hospital for Children and the Coast Hospital. The subjects of the demonstrations covered practically the whole range of medicine.

In 1924 the course was reduced from a fortnight to one week. On the first day Dr. C. H. Kellaway lectured on the physiology of renal secretion and Dr. S. A. Smith lectured on artificial pneumothorax. In the afternoon there were operations and clinics at the Royal Prince Alfred Hospital. On the second day Dr. C. H. Kellaway lectured on morbid processes in renal diseases. Dr. Gordon Craig demonstrated the renal functional tests; Dr. A. Holmes à Court and Dr. George Bell gave a demonstration of blood transfusion. There were operations and clinics at the Sydney Hospital. On the third day Dr. Kellaway continued his lectures, dealing with the morbid changes in the cardiovascular system associated with nephritis and with the nature of high blood pressure. Dr. Gordon Craig dealt with the effect on renal function of obstruction in the urinary tract. On the fourth day Dr. Kellaway dealt with the pathological significance of albuminuria and uræmia as symptoms of nephritis, while Dr. Gordon Craig dealt with the diagnostic value of pyelography. In the afternoon demonstrations were given at the Royal Alexandra Hospital for Children and the members of the course attended at operations and ward clinics at the same institution. On the last day of the course Dr. Kellaway completed his lectures with an account of the pathological significance of polyuria and œdema as symptoms of nephritis. Dr. J. C. Windeyer delivered a lecture on the renal disorders of pregnancy. In the afternoon Dr. E. Ferguson gave a demonstration of the Schick test. There were operations and ward clinics at the Royal Prince Alfred Hospital.

At the last post-graduate course the system of instruction was somewhat altered. Those responsible for the arrangements felt that fewer subjects should be discussed and one subject should be treated in detail. To meet those views Dr. C. H. Kellaway, Director of the Walter and Eliza Hall Institute for Research in Pathology and Medicine, Melbourne, was invited to deliver a special course of lectures upon the structure and function of the kidney in health and disease. An admirable presentation of the various aspects of the subject was given.

Cancer Research.

In 1921 the Senate of the University of Sydney set aside a sum of money to form the nucleus of a cancer fund. This was augmented by the acquisition of the J. P. Archibald bequest and those two sums with increments at present amount to £8,800. In the same year a cancer research committee was appointed and in 1922 a scientific advisory committee of five Professors of Physics, Organic Chemistry, Physiology, Histology and Surgery (called the Committee of Direction) was appointed to direct research. These two committees have assessed the capacity of the University laboratories for the purpose of cancer research, estimated their deficiencies and made some of them good and with the means at their disposal have devised and been engaged upon a cooperative plan of research, some of the results of which have been published in THE MEDICAL JOURNAL OF AUSTRALIA. Recently they have inaugurated the New South Wales Cancer Campaign under the auspices of the University in the hope that a wider Australian movement will shortly come into being as part of the British Empire Cancer Campaign. The result of these activities has been that additional donations have been received from the Federal and State Governments and from private individuals, so that the total amount now available for cancer research is £16,000, the greater part of which has been capitalized.

Advantage has been taken of the oversea journeys of members of the professorial staff upon the Committee of Direction to have inquiries made as to the most hopeful lines of investigation and young men of promise have been sent abroad to specialize in these. Briefly the present research activities are divided into three main parts: (i.) Histological and tissue culture work, (ii.) biochemical investigation in relation to growth and new growths, (iii.) biophysical research into the effect of physical agencies, especially radiation, upon living tissues. When these laboratories are completely equipped, as they will be in the near future, the results obtained by research workers will be applied to investigating clinical cases of suspected or proven cancer in the teaching hospitals. In the meantime an educational campaign is being designed to impress upon the community the importance of cancer as a menace to the public health and to put before them in a popular way the results of modern research work upon the original treatment of cancer. By these means it is anticipated that ultimately sufficient money will be made available to extend the scope of the Committee's investigations in other departments of cancer research or to build upon the foundations already laid.

I cannot close this account of the various changes made in the education system for medical students in the University of Sydney without making reference to the irreparable loss sustained by the University and the world of science by the untimely death of Professor John Irvine Hunter in December of last year. He was one of the most brilliant students of our University. His career after graduation was unique and unprecedented. His teacher, Professor J. T. Wilson, recognizing early John Hunter's great intellectual gifts recommended the

Senate to appoint him Associate Professor of Anatomy when he was a graduate of only a few months' standing. Subsequent events showed how wise the Senate's action was in adopting this recommendation and the further recommendation by which three years after graduation John Irvine Hunter became Challis Professor of Anatomy.

From the date of his first appointment to the teaching staff of the Medical School Professor Hunter proved himself a gifted and inspiring teacher and an original investigator of the highest order. His brilliant and original researches in the fields of embryology, anthropology, comparative anatomy and neurology gained for him a world wide reputation as a scientist of the first rank and brought fame to the University in which he received his early training in scientific knowledge.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF MELBOURNE.

[Compiled from information kindly supplied by the Dean of the Faculty of Medicine.]

Five years ago Professor Sir Harry Allen, Dean of the Faculty of Medicine of the University of Melbourne, published in the Education Number of The Medical Journal of Australia a very admirable account of the history of the Medical School and of the curriculum as it then obtained. Each year since 1920 we have chronicled the changes which have been introduced in the curriculum. The serious illness of Sir Harry Allen a little more than one year ago brought in its train many unavoidable changes, at first of a temporary and later of a permanent character. Professor Sir Harry Allen has been succeeded by Professor R. J. A. Berry as Dean of the Faculty. Professor Peter MacCallum now occupies the Chair of Pathology. Dr. F. L. Apperly acted as Professor of Pathology until the appointment of Professor MacCallum and has now returned to his previous office of Senior Lecturer and Demonstrator in the department. This issue is not a suitable place to record the full history of the Medical School, for this history is practically the story of Sir Harry Allen's life. We are concerned at the present moment with an account of the existing provisions for the training of medical students and are unwilling to bury in this account an appreciation of the work of the man who is responsible for the present high standing of the Melbourne Medical School among university institutions.

The Medical Faculty.

The Medical School was established sixty-one years ago. Its affairs are controlled by the University Council, composed of eight members appointed by the Governor-in-Council, ten members elected by the graduates of the University, four members elected by the teaching staff, two members elected by the undergraduates, three *ex officio* members and four coopted members. The Faculty of Medicine consists of twenty-nine members. All the medical members of the Council (at present there are three), the professors and independent lecturers of the Medical School, the Inspector-General of the Insane, the Chief Health Officer of Victoria, representatives of the honorary medical staffs of the teaching hospitals and certain other persons are members. The Faculty advises the Council in all matters relating to medical education and the appointment of the teachers and examiners. Convocation, by which is meant the body of graduates of the University, appoints a standing committee and endows it with power to sanction new statutes or amendments of the existing statutes. This committee may also submit suggestions to the Council in regard to any of the affairs of the University.

The Curriculum.

The University grants four degrees and two diplomas in medicine. The qualifying course in medicine was lengthened in 1922 to five years and two terms. The degrees of Bachelor of Medicine and Bachelor of Surgery can be taken at its termination.

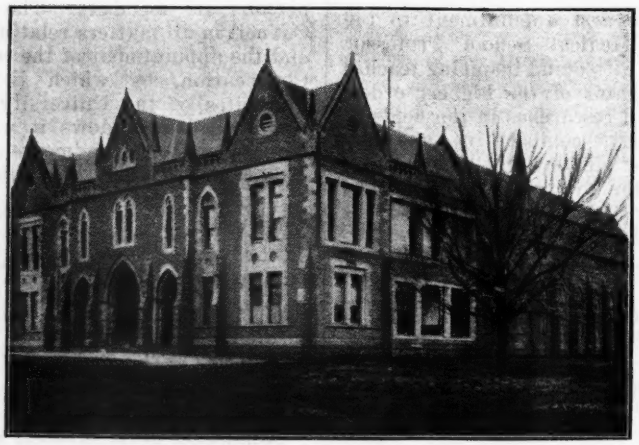
Admission to the Medical School is open to young men or women who have gained the school-leaving certificate, after having passed the intermediate examination. This involves the passing at one or other school examination in English, mathematics, Latin and three other subjects. A knowledge of a modern language other than English is not compulsory. The possession of the school-leaving certificate is not demanded of graduates in arts or of students who have completed two years for the degree of Bachelor of Science.

The first year of the course is spent in the study of chemistry, natural philosophy, medical zoology and medical botany. The teaching of chemistry is directed by Professor A. C. D. Rivett. Dr. E. J. Hartung is the Associate Professor and Dr. W. Davies is the Senior Lecturer. One hundred systematic lectures on inorganic chemistry, chemical physics and the elements of organic chemistry are delivered and the student spends about one hundred and twenty hours in the laboratories.

Professor T. H. Laby and Mr. J. S. Rogers lecture to the students on physics. The course embraces mechanics, statics, dynamics, heat, sound, light, electricity and magnetism. Approximately one hundred and twenty hours are spent in practical work. While the teaching in physics is to some extent modified by its adaptation to medical requirements, it is taught at the commencement of the course before the student has received any medical training. He is therefore incapable of appreciating the nature of this adaptation. The teachers are physicists who have not graduated in medicine. Moreover, the teaching of chemistry and physics is completed in the first year. The student renews his acquaintance with these subjects in the physiological laboratory and to some extent in the medical wards later in the course, but there is no continuity of study, nor is there any real coordination between

the preliminary study and the teaching of biochemistry and biophysics.

Zoology is taught under the direction of Professor W. E. Agar, Dr. G. V. Buchanan and Dr. G. W. Tiegs. The student has to attend sixty systematic lectures and to spend eighty hours at practical work. The study embraces the elements of morphology of vertebrates and invertebrates, a certain amount of more advanced morphology and embryology of a few selected animals, the structure of unicellular animals and of some parasites of man and the life history of flies and mosquitoes.



University of Melbourne.—Medical School.

The course in botany is shorter than that in zoology. It is under the control of Professor A. J. Ewart with the assistance of Dr. Ethel I. McLellan. There are eleven lectures and fourteen hours spent in the laboratory. Here again the attempt is made to adapt the study to medical requirements. Structure, growth, physiology and classification of plants are taught and to these is added the study of the structure and history of bacteria, of pathogenic fungi and of other vegetable organisms. The student does not encounter bacteria or protozoa again until he enters his fourth year.

At the end of the first year, that is in November, the student is examined in the four subjects. There is a pass and an honours examination. If the student fails, he may present himself for reexamination in the following March.

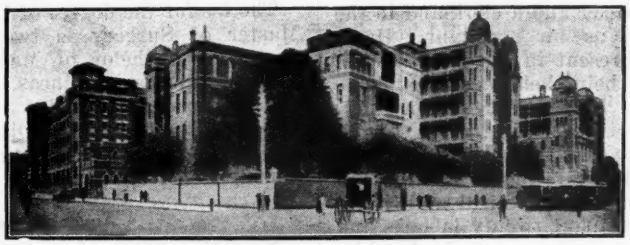
University of Melbourne.—Corridor of Department of Anatomy.

At the beginning of the second year the student who has passed all the subjects of the first division, passes on to the second division. Anatomy and physiology are taught during the second and third years. Professor R. J. A. Berry is the Professor of Anatomy; he is assisted by the Stewart Lecturer, Dr. A. E. Coates, and the Lecturer on Histology and Human Embryology, Dr. L. E. Hurley. The study of anatomy is conducted in the new Anatomy Department. This is a spacious and excellently planned building, with numerous class-rooms, lecture theatres, dissecting rooms, laboratories and research rooms. The equipment is admirable and plentiful. The department is a monument to the foresight and wisdom of Professor Berry, in that it will cover the needs of students for many years without the risk of overcrowding. The museum is a fine one; it contains many beautiful frozen and preserved dissections and other specimens and a wealth of material for teaching purposes.

Systematic lectures numbering about one hundred and twenty are given on anatomy, osteology, embryology, neurology and topographical anatomy. At least sixty hours have to be spent in the laboratory classroom for histology, while each student is required to dissect two whole human bodies. Histology is included in the study of anatomy. Lectures are given on this subject during the first and second terms of the second year. The teaching of histology may be extended to the third year. Practical work in the laboratory also may be extended in an extra course.

There has been considerable change in recent years in the manner of teaching physiology. Professor W. A. Osborne, assisted by Associate Professor W. J. Young and Dr. L. A. Ivan Maxwell, has largely replaced the systematic lecture by laboratory lectures and demonstrations. Sixty hours are devoted to this course in the second year. In the

third year applied biochemistry is taken and lectures in pharmacology with practical work are added. Physiology of the special senses is undertaken by Sir James Barrett. Experimental physiology is taught in the class room during the third term of the second year. The gradual evolution of the teaching of physiology from the old fashioned water-tight compartment method to the advanced scheme of applied biochemistry and biophysics has become manifest during the past five years. One important barrier has still to be overcome, namely the artificial separation of the training in the fundamental sciences from that in the purely professional sciences of medicine, surgery and preventive medicine.



Melbourne Hospital.—South-west View.

Normally the student completes his work in the second division at the end of the third year. He then presents himself for examination in anatomy and physiology. He who passes, enters on his studies in the third division; he who fails, is required to undergo another year's training in both subjects.

The subjects of the third division are pathology and bacteriology, *materia medica* and pharmacy, therapeutics, hygiene, advanced anatomy and the sciences of obstetrics and gynæcology.

As has already been mentioned, Professor Sir Harry Allen has recently been succeeded by Professor P. MacCallum. Dr. F. L. Apperly, Dr. G. R. Cameron and Dr. W. H. T. Moore are members of his staff. By pathology is meant to a large extent morbid anatomy. The course comprises seventy-two lectures with demonstrations and seventy hours spent in the laboratory. *Post mortem* examinations are attended by the students. The students also study clinical pathology at the Walter and Eliza Hall Institute for Research in Pathology and Medicine. The Pathological Museum provides some extremely valuable material for the teaching of morbid anatomy. Microscopical pathology is also taught as a practical science and the students are taught to acquire technique in the handling of specimens.

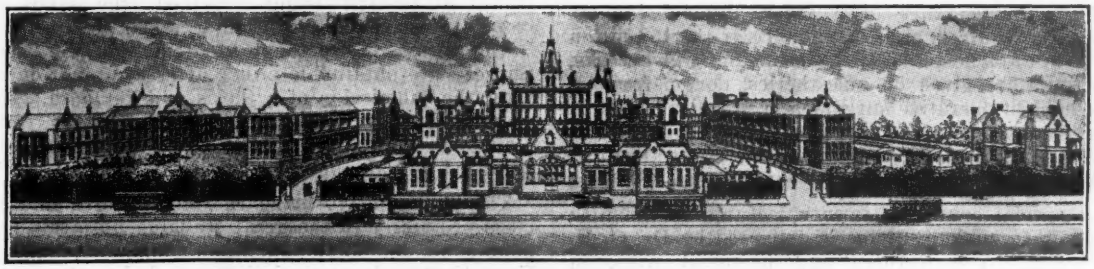
The Department of Bacteriology is quite distinct from that of Pathology. It is under the control of Dr. R. J. Bull who delivers twenty lectures on elementary bacteriology and has a practical class during the third term of the third year. Bacteriology is also taught in the Walter and Eliza Hall Institute of Research in Pathology and Medicine by Dr. C. H. Kellaway and his assistants.

Materia medica and pharmacy are separated from therapeutics. The former is taught by means of about twenty lectures by Dr. B. L. Stanton, while the latter is taught in fifteen lectures by Dr. H. H. Turnbull.

Dr. T. W. Sinclair lectures on hygiene and arranges to take the students to certain sewerage disposal works and the like. The course covers the subjects of water supply, sanitation and similar concomitant factors in public health work.

Dr. Alan S. Newton is responsible for the classes and lectures on regional and applied anatomy.

A certain number of lectures on obstetrics and gynæcology are delivered during this period, but the subjects are not included among those of the third division. An examination in all the other subjects is held at the end of the fourth year. Reexamination occurs in any single subject when the student fails. It is essential, however, that the student shall have passed the examination in each of the six subjects before proceeding to the fourth and last division.



Alfred Hospital (from a drawing).

While the student does the work of the third division in his fourth year, the work of the fourth division commences in the second and third terms of the fourth year and is continued until the end of the course. There have been many changes in the curriculum and in the syllabus affecting this

division. The number of lectures in medicine and surgery have been reduced from eighty to forty. The Stewart lecturer in medicine is Dr. L. S. Latham and in surgery is Mr. Basil Kilvington. They are assisted by Dr. Lawton and Mr. Trumble respectively. Thirty months are spent in the clinical study of medicine and of surgery at the Melbourne Hospital, the Alfred Hospital or the Saint Vincent's Hospital. The Deans of these three hospitals are Dr. B. T. Zwar, Mr. Alan Hales and Dr. D. Murray Morton. All the honorary physicians and surgeons on the staffs are recognized as teachers or tutors in clinical medicine and clinical surgery. Tutorial classes are compulsory; the student must act in the wards as a dresser and a clerk and in the out-patients department as an assistant. He is further required to be present in the *post mortem* room when autopsies are being held on patients who have died in the wards in which he is on duty. The total number of lectures delivered by Dr. R. H. Morrison on obstetrics and gynæcology is fifty-five. The student attends these lectures on obstetrics before he starts his practical midwifery. He is required to be present at twenty labours and for this purpose arrangements are made for him to be in residence at the Women's Hospital. A reform is being introduced in this Department. In a short time a director of obstetrical research will be appointed and reorganization of the teaching will be effected. The practical work in gynæcology covers a period of six weeks and may be taken either at the Women's Hospital or in the gynæcological wards of the general hospitals.

Every student is required to have some training in the special branches of medicine and surgery. The course in ophthalmology occupies nine weeks, that in pædiatrics three months, that in dermatology six weeks, that in oto-rhino-laryngology nine weeks and that in venereal diseases six weeks. In addition attendance at a fever hospital for six weeks is required, as is attendance at the Reception House or at a hospital for the insane for twelve weeks. Lectures are given on anæsthetics, demonstrations are held in operative surgery and practical work in vaccination is added. In the last place Dr. A. V. M. Anderson delivers three lectures on medical ethics.

A special course of twenty lectures in the fifth year on forensic medicine is delivered by Dr. C. H. Mollison. The lectures and technical work in military medicine have been discontinued.

In August of the sixth year the student sits for his final pass examination and is required to give evidence of proficiency in medicine, clinical medicine, surgery, clinical surgery, obstetrics and gynæcology. For those who fail, a supplementary examination is held in the following March. At this supplementary examination the student is permitted to take the subject in which he has failed. Should he be again referred, he is required to submit himself to examination in all the subjects of the final division in the following August. Failure in clinical medicine or surgery entails a repetition of hospital work before examination. Honours can be taken in a final as well as in the first, second and third examinations.

Fees.

The fees for male students amount to about £234. The annual fee is £25; fifty-three guineas have to be paid for hospital practice and twenty-six guineas for training in the several special departments. A fee of six and a half guineas is payable to the School of Pharmacy. There is a sports fee of thirty shillings for male and twenty shillings for female students. The club house fee is one guinea which is reduced to one-half in the case of students of the affiliated colleges or of the Teachers' College.

The fee for the degree of Doctor of Medicine or of Master of Surgery is twenty guineas. For the degree of Bachelor of Medicine and Bachelor of Surgery it is seven guineas. Ten guineas is charged for the examination for the Diploma of Public Health. The fee for the Diploma of Tropical Medicine is included in the charges made for the course, namely seventeen guineas.

Advanced Courses.

Special courses of instruction are provided for graduates proceeding to the examinations of the public health or tropical medicine diplomas. In the former the course is divided into two parts. The first part embraces chemistry, physics, physiology, microscopy, engineering and building construction, practical pathology and bacteriology. The second part includes the ætiology, diagnosis and prevention of disease, general hygiene, sanitary law and administration, vital statistics and statistical methods and sanitary investigation and reporting. The course in tropical medicine formerly necessitated work during three months at the Australian Institute of Tropical Medicine at Townsville. As clinical and laboratory instruction at this institute is not at present being provided, the study of tropical diseases has to be undertaken elsewhere.

The degrees of Doctor of Medicine and Master of Surgery are obtainable either after examination or after the submission of a thesis or after both. The examinations are held in the month of March. The tests are severe and in consequence the degrees are regarded as valuable assets.

The movement to bring the Medical School into close proximity to the great teaching hospitals has progressed but little during the last five years. From time to time practical proposals have been put forward and these have been introduced with strong support. The latest proposal has been the erection of a clinical hospital in close proximity to the Medical School. Unfortunately the site selected as the most suitable has been claimed by the Education authorities and the whole question is once more thrown back to its initial stage. Until the two institutions, the Medical School and the great teaching hospital, are brought together, it is futile to expect a realization of the Edinburgh plan or of the modification of it devised by a group of teachers in Sydney at the invitation of THE MEDICAL JOURNAL OF AUSTRALIA and published in the Education Number of the journal in March,1920.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF ADELAIDE IN 1925.

[Prepared by Special Request by the Dean of the Faculty of Medicine.]

ALTHOUGH the University of Adelaide was established by Act of Parliament in the year 1874, it was not until 1876 that the academical work was commenced, the number of matriculated students being eight and of non-graduating students attending lectures fifty-two. Next year then, 1926, will be the fiftieth year of its existence and the Council have decided to celebrate the Jubilee of the University of Adelaide in August, 1926.

A very full and interesting account of the history of the University and its origin, owing mainly to magnificent gifts by Sir Thomas Elder, Sir William Watson Hughes and the Honourable J. H. Angas, may be read in THE MEDICAL JOURNAL OF AUSTRALIA of March 27, 1920. The late Sir Edward Charles Stirling, F.R.S., may be regarded as the founder of the School of Medicine. He was appointed Lecturer in Physiology, Sir Thomas Elder having given £10,000 to endow the lectureship. In 1884 the school was formally opened with Professor Watson, Professor of Anatomy, Professor Rennie, Professor of Chemistry, and Sir E. C. Stirling, Lecturer in Physiology.

At the present time Sir George J. R. Murray, K.C.M.G., Lieutenant-Governor and Chief Justice of South Australia, is the Chancellor; Professor William Mitchell, M.A., D.Sc., is Vice-Chancellor; Dr. H. Swift is Dean of the Faculty of Medicine; Mr. F. W. Eardley, B.A., A.I.A.S.A. is the Registrar.

During the last few years there have been some changes in the personnel of the staff. Dr. Swift having had to retire from the staff of the Adelaide Hospital owing to the age limit, considered it his duty to give up the Lectureship in Medicine also in 1923 and Dr. de Crespigny was appointed in his place. Drs. Hone and Ray were elected Lecturers in Clinical Medicine. The late Dr. Benjamin Poulton retired from the Lectureship in Surgery after holding the office for thirty years and Dr. Cavanagh-Mainwaring was selected to fill the position, Messrs. H. S. Newland, C.M.G., O.B.E., F.R.C.S., and Bronte Smeaton, M.B., B.S., being the Lecturers in Clinical Surgery. In 1921 Dr. J. A. G. Hamilton retired from the Dr. E. Willis Way Lectureship in Gynæcology and Dr. T. G. Wilson was appointed in his stead. In 1924 it was thought wise to place obstetrics and gynæcology under the same lecturer and so Dr. Wilson lectures on both subjects, Dr. Lendon having made the way by resigning from the Lectureship in Obstetrics in 1923, having held the post since the death of Dr. Way in 1901. Drs. Hamilton and Lendon have been appointed lecturers (*honoris causa*) for their long and valued services to the Medical School. Dr. W. T. Hayward, C.M.G., LL.D., retired from the Lectureship on Materia Medica and Therapeutics in 1920 and Dr. H. K. Fry was appointed to the position. Dr. Hayward had held the position for nearly twenty years, having succeeded Dr. Cleland and the Council of the University very fittingly rewarded him for his lengthy period of faithful serice by making him a lecturer (*honoris causa*). In 1920 it was considered that more attention should be paid to public health and preventive medicine and a course of lectures and demonstrations was added to the schedules and Dr. F. S. Hone was appointed lecturer.

In 1922 Mrs. Marks bequeathed £30,000 to the Medical School; part of the income from this splendid bequest has been allotted to the chair of Pathology, which is now called the Marks Professorship of Pathology. The Professor relinquishes the position of Director of the Laboratory at the Adelaide Hospital, and so is enabled to give his whole time to the teaching of pathology. The remaining part of the income is to be earmarked for the purpose of providing more efficient teaching in the department of obstetrics and gynæcology. Mrs. Simpson and Miss Keith Sheridan also bequeathed the very handsome sum of £20,000 to the Medical School for the purpose of medical research. Part of the income from this fund has been allotted to form part of the salary of a Marks Lecturer in Applied Physiology and research and part will be allocated to the salary of a Sheridan Research Fellowship in Medicine.

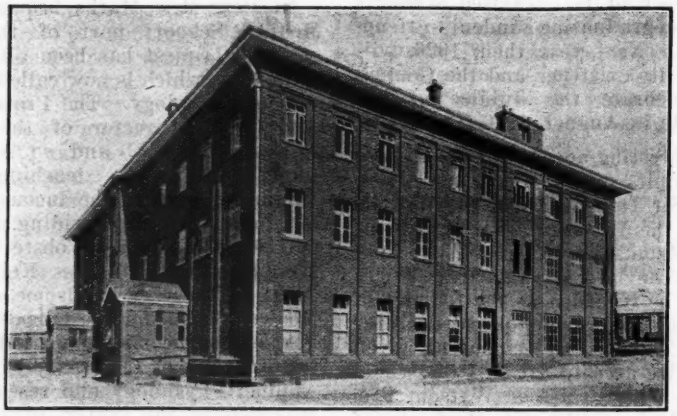
The Medical School owing to its rapid growth had been quite inadequately accommodated in the University buildings on North Terrace, but owing to the generosity of the family of the late Mr. John Darling, a large new building, called the Darling Building, has been erected and is now occupied by the Professors of Pathology and Physiology with their several lecture rooms, students' rooms and so forth. The Medical Library has also been provided for in a finely proportioned room. At the Adelaide Hospital which is only a few hundred yards from the University, several alterations and additions have been made and there is in course of construction a large building in front of the present main entrance which is to provide accommodation for the resident medical staff and the administrative department of the hospital. The number of resident medical officers at the present time is twelve besides a medical superintendent. The Registrar also resides in the hospital.

For some years the honorary medical staff have been anxious to have residential quarters provided for casualty dressers and at last the Board have arranged so that two dressers can reside in the hospital. When the new block is finished, there will be room for more. As soon as this building is completed a new out-patient department is to be started and better and larger accommodation provided for the casualty room. These two departments are worked under extreme difficulties, the accommodation being entirely inadequate and antiquated.

For a long time the University and the honorary medical staff have been anxious that better facilities for the teaching of obstetrics and gynæcology should

be provided at the Adelaide Hospital. They deprecate any makeshift arrangement such as the alteration of any of the existing buildings into maternity wards, as a waste of money and not in the best interests of the public and urge that a new building should be erected either on Frome Road, between the Hospital and the Dental Hospital, or in the old Exhibition ground. The matter is an urgent one and the Medical School should not be compelled to wait some years before it is finalized.

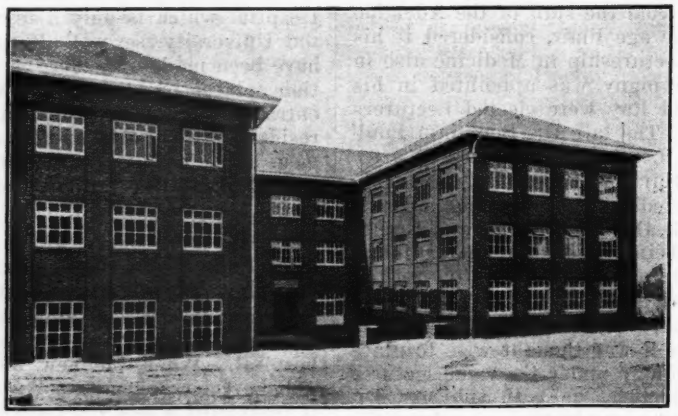
The biochemical department is in course of rearrangement and with the small laboratories adjacent to the wards the work will be carried on more efficiently in every way.



University of Adelaide.—The Darling Building, South Elevation.

At the Children's Hospital in North Adelaide there are two resident medical officers and when the new out-patient building for which tenders have just been called, is finished, there will be provision for more. The University students have to attend in the wards and out-patient rooms for three months and also courses of clinical lectures on the medical and surgical diseases of children.

The Queen's Home is situated in Rose Park. There the students attend their maternity cases and receive tutorial instruction. There is one resident medical officer and two or three students can reside there during their period on duty. There is a pre-maternity clinic attached to the out-patient department at the Adelaide Hospital. Clinical instruction in mental diseases is given at the Mental Hospital, Parkside.



University of Adelaide.—The Darling Building, North and West Elevation.

Curriculum.

To obtain the degrees of Bachelor of Medicine and Bachelor of Surgery a student is required first of all to matriculate. To matriculate he must declare that he will obey the statutes and regulations of the University, that he has attained the full age of sixteen years and that he holds the leaving certificate of the Public Examinations Board, having passed in Latin, English literature, mathematics and Greek or French or German. Then he must complete not less than six years of medical study and pass four examinations.

He may enter for the first examination at the end of one year of study when he has to satisfy the examiners in each of the following subjects: Physics, inorganic chemistry, physical chemistry, botany, zoology. At the end of two years after passing the first examination he may enter for the second examination and satisfy the examiners in anatomy (with dissections), histology, physiology and biochemistry, organic chemistry and *materia medica* and pharmacology.

For the third examination he must have completed two years of study after passing the second examination and then must satisfy the examiners in clinical medicine, clinical surgery, regional and surgical anatomy, operative surgery, therapeutics, pathology and bacteriology, public health and preventive medicine and medical zoology.

For the fourth and final examination he must have completed one year of study after passing the third examination and then must satisfy the examiners in (i.) Medicine, principles and practice, including the medical diseases of children; (ii.) surgery, principles and practice, including the surgical diseases of children; (iii.) obstetrics; (iv.) gynæcology; (v.) forensic medicine; (vi.) psychological medicine; (vii.) dis-

eases of the eye; (viii.) diseases of the ear, nose and throat.

An alteration was made in December, 1924, in the classification of students who pass the examinations. Regulation IX. now reads:

> Except where otherwise provided by these Regulations the names of candidates who pass with credit at each ordinary examination shall be arranged in order of merit and the names of other candidates who pass shall be arranged in alphabetical order.

The first three years are devoted to study in the University of physics under Professor Kerr Grant, of chemistry under Professor Rennie, of botany under Professor Osborn, of zoology under Professor Harvey Johnston, of anatomy under Professor Wood Jones, of physiology and biochemistry under Professor Brailsford Robertson. The last three years are given up to the different branches of medicine and surgery, the time being spent chiefly in the hospitals. During the fourth and fifth years

University of Adelaide.—Darling Building, the Library.

Professor Cleland gives instruction in pathology and bacteriology in the lecture rooms, laboratories and museums and *post mortem* room.

Fees.

The fee for the course of six years, including ordinary examinations and degree fees shall be one hundred and eighty pounds payable in advance, either thirty pounds a year or ten pounds a term. Besides this amount the student has to pay some thirty-six guineas for attendance at the Adelaide and Children's Hospitals.

Bursaries.

The State Education Department grants four bursaries annually to four out of the first twelve candidates in the "Leaving Honours Examination" of the University of Adelaide, who have indicated their intention of taking the medical course. These bursaries are of very considerable value as they cover all fees for the six years' University medical curriculum, also all fees at the hospitals and besides £20 *per annum* to each bursar for maintenance or £40 *per annum* at the discretion of the Minister of Education when the bursar is unable to reside at home.

Clinical Study.

At the commencement of his fourth year the student enters upon his clinical course and in order to direct his observations in a right line, he is at once taken in hand by the tutors and associate tutors, surgical and medical, and given six weeks' instruction in case taking, examination of patients, percussion auscultation and the like, the handling of patients, uses of splints and so forth. Two obstetrical tutors, Drs. Gilbert and Magarey, have been appointed as it was found that there was too much work for the one, Dr. Brian Swift, who has been granted leave of absence in order to extend his studies in England and on the continent. These clinical instructions are carried on throughout the academic year.

The honorary medical staff, as part of its duties, undertakes the instruction of students attached to them in the wards, in the out-patient rooms and in the theatres. The Registrar and the resident medical officers also give practical instruction in emergencies, accidents, poisoning cases, in the casualty rooms and also in case taking and clinical examinations at the bedside.

For some years the honorary medical officers have been carrying on their work in a systematic manner. The head of the team, the in-patient physician or surgeon, has under him and corresponding with him an assistant physician or surgeon who attends in the out-patient room or visits the wards and in the absence of the head takes his place; under him are the tutors and associate tutors. He also has a house physician or surgeon attached to him. It is thought that if clinical assistants were attached to the team

it would make for its more perfect working, as not seldom it happens that the assistant physician or surgeon is unable to attend or is taking the place of the senior; the clinical assistant would then take his place in the out-patient room and so relieve the resident medical officer or one of the resident medical officers of this duty. The clinical assistant would attend each morning at nine o'clock, sort out the patients, treat those with old standing and less urgent conditions, leaving the new patients with more serious afflictions for the assistant surgeon to see on his arrival, so giving more time for the latter to instruct the students. Each physician has a corresponding surgeon with whom he consults in doubtful cases. The visiting medical officers are purely honorary; they are not paid for their services, but they share the students' hospital fees amongst themselves. There are no whole time visiting medical officers.

The lectures in medicine, surgery, gynæcology and obstetrics and the special subjects are delivered at the university, but their number has been considerably curtailed in order to give the student more time for clinical work, it being held that the student can read in the many up-to-date textbooks of the day all that he would hear at a lecture and he could also do this at night. The number of clinical lectures and clinical instruction on the other hand have been extended. At the same time the sixth year student is not able to put in as much time as he ought to in the wards at the bedside. By systematizing the work, by the prevention of overlapping, by correlating the work of the anatomist, the physiologist (especially as soon as the Lecturer in Applied Physiology arrives), the bacteriologist and biochemist and the pathologist with the clinical instruction in the wards, by taking advantage of the small laboratories attached to the wards with the assistance of the clinical biochemist, it is hoped that steady progress will be made on the lines of present medical education. At the same time precautions must be taken to prevent the pendulum from overswinging, care must be taken to prevent the medical course from being overcomplicated and overadministered; the student should not be so overcoached and overdirected that he loses the necessity of making observations for himself. He must not be so continually instructed and tutored that he has no time to make any investigation on his own; he should be stimulated to apply his various kinds of knowledge to ascertain fresh facts and to the study of different cases from new angles. There is a tendency in the present team or unit system to make all the students specialists; to cater too much for 5% of the number is not to the advantage of the 95%. The time is not ripe for every medical man to be a specialist in some one part of the human frame; the great majority must, being located in country districts, be able to treat skilfully any and all kinds of diseases and accidents. For this reason too much time should not be spent on what may be termed the higher grades of the profession, which should be left for a post-graduate course.

Post-Graduate Training.

It has been said that the student at the University learns how to learn and that the medical practitioner is just beginning to acquire real knowledge at the time of his superannuation. The student has to know certain things in order that he may pass his examinations. Many use the whole of their student life solely for this purpose. After graduation he is faced with the embarrassing fact that, although the sum total of human knowledge is deplorably small, he cannot hope to acquire more than a tithe of the information that has been gathered in the course of time, no matter how diligent he may be and no matter for how long he may be endowed with the ability to learn. He labours under a disadvantage that much that was taught yesterday, today has been discarded as mistaken and untrue. Throughout his professional life he is under the necessity of revising his stock of knowledge and of correcting the false doctrines of earlier years. Above all, he should ever watch himself, lest he succumb to the temptation of evolving some specious theories on unproven and untenable hypotheses. While orthodoxy is not necessary gospel, heterodoxy is usually dangerous and should be viewed with suspicion. For these and many other reasons our medical schools and learned societies have organized courses of post-graduate training in order that the medical practitioner may have an opportunity of gleaning something of the march of science and of the alterations that have been introduced into advanced medical lore.

The first serious attempt to institute well-planned post-graduate courses took place in Melbourne. The Victorian Branch of the British Medical Association and the Faculty of Medicine of the University of Melbourne formed a committee called the Melbourne Permanent Committee for Post-Graduate Study. Its members represent the Faculty of Medicine, the Walter and Eliza Hall Institute for Research in Pathology and Medicine, the Melbourne Hospital, the Alfred Hospital, the Saint Vincent's Hospital, the Children's Hospital, the Women's Hospital, the Eye and Ear Hospital and the Victorian Branch of the British Medical Association. In the year 1920 this committee came into existence and organized the first annual course. A large measure of success attended its activities, thanks to the care taken in the preparation and to the organizing abilities of its members. It was recognized from the first that it was essential to leave the whole of the arrangements to medical practitioners accustomed to teaching. The requirements of the general practitioner were ascertained and the course was moulded to these requirements. A good attendance was secured for each annual course and practitioners travelled great distances, even from other States, to attend these excellent courses. More recently special courses of lectures have been held. These additional undertakings have been admirably carried out and have excited the admira-

tion of those privileged to attend. An obstetric course is about to be held. This course reflects the general demand for improved teaching in obstetrics. The Victorian Branch of the British Medical Association has taken a leading part during the term of office as President of Dr. J. W. Dunbar Hooper.

The organization of the post-graduate courses in Sydney has been described by Professor A. E. Mills, Dean of the Faculty of Medicine, in another part of this issue. As he has pointed out, the annual courses were begun in 1922. The lectures and demonstrations at the first two courses were of a high order of excellence, although they were too numerous. The lecturers and demonstrators took great pains in the preparation and sacrificed much time and energy. The general arrangements were placed in the hands of the University Extension Board. The programmes were not satisfactory and the result was a considerable amount of confusion. The lesson to be drawn from the experience of the two courses in 1922 and 1923 is that post-graduate medical courses must be organized and managed entirely by medical practitioners. There must be one person responsible for the arrangements with the lecturers and demonstrators. The holding of simultaneous demonstrations and ward lectures cannot be successful unless there be a very large number of entrants, so that the organizers can divide the attending graduates into groups of approximately equal size and allocate one group to each demonstrator. In the 1924 course many of the defects of the earlier courses were avoided. A series of lectures by an eminent pathologist was substituted for the many lectures by many physicians, surgeons and specialists. The demonstrations, too, were limited in number and the organization was much improved. This course provided for those attending a splendid opportunity to become familiar with the modern doctrines in connexion with the many aspects of renal disease.

In a recent issue of this journal it has been announced that a post-graduate clinical course will be held in August in Brisbane. There will be no set lectures. Demonstrations of patients and of methods of diagnosis and treatment will be given at the larger hospitals by members of the honorary staffs. The arrangements have been carried out by a committee of the Council of the Queensland Branch of the British Medical Association. Unless the number of simultaneous demonstrations prove too great for the number of participants, the course should prove to be of great value to the medical practitioners of Queensland.

Little progress has been made in Adelaide in the establishment of regular courses of post-graduate study. A beginning was made in 1924, when a special course of instruction in the administration of "Insulin" was held.

A committee has been formed by the Tasmanian Branch of the British Medical Association who have arranged with the University authorities for facilities to hold post-graduate courses.

It will be realized that the need to go overseas for the purpose of post-graduate study has been removed and that Australian medical practitioners are now offered facilities to keep themselves abreast of the times in their own institutions. For those who can afford the time and money to visit the homeland, there is a liberal education to be gained. A man's outlook is widened and his knowledge is extended by contact with teachers and other authorities in Great Britain, in continental countries and in America. Post-graduate study in other countries is certainly worth while, provided that the practitioner preserves his powers of discrimination and does not adopt the by no means infrequent attitude that foreign institutions are superior to our own. The man who talks loudest, is not always the safest or wisest guide. Practitioners visiting London should seek the aid of the Medical Secretary of the British Medical Association in the new home in Tavistock Square, Bloomsbury. Dr. Margaret A. Willis, Secretary of the Fellowship of Medicine, 1, Wimpole Street, London, W.1, will also be prepared to give information and assistance to visiting doctors.

There are some valuable post-graduate courses for English-speaking practitioners at Vienna. Full particulars can be obtained regarding these courses by applying to the Bureau der Wiener Ärztekurse, Wien, VIII., Schlösselgasse 22.

British practitioners will always receive courteous attention and will find facilities for post-graduate study in Paris at the University, at the leading hospitals and at the Pasteur Institute.

Membership of the British Medical Association.

THE importance of joining the British Medical Association is known to every senior student in the medical schools. It is the representative organization in Australia of the medical profession. It is the leading medical society for the promotion of scientific knowledge. The meetings of its Branches are the most important medical meetings held. Each member receives two medical periodicals, *The British Medical Journal* and THE MEDICAL JOURNAL OF AUSTRALIA. The Association possesses adequate machinery for safeguarding the interests of medical practitioners and for guiding public opinion and the legislature in regard to matters affecting the health of the community. Like all other voluntary bodies, its members subscribe to its rules and regulations. Unlike the trade unions it has no power of coercion and cannot levy from its members for any specific purpose. It has the power to refuse to elect a medical practitioner to membership and to expel a member, but this power is rarely exercised. Recently an expelled member sought the aid of the Courts to recover money in compensation for damage sustained as a result of his expulsion. The case was taken to the Privy Council and the Lords of the Privy Council upheld the action of the Branch that

had expelled the member, thus giving a special ruling which will serve as a precedent for the British Medical Association and all other voluntary societies in the future.

According to the lists of members published in this journal on April 25, 1925, there were on the first day of this year 3,574 members of the six Branches of the British Medical Association in Australia. This number may be a little low, since members whose subscription is one year in arrears, have their names removed from the list on the last day of the year. The majority are reinstated within a few months by the payment of the amount due. As there are 4,773 names on the several medical registers for 1925, it appears that 74.87% of the medical practitioners in Australia are members of the British Medical Association. The New South Wales Branch list contains the names of 1,412 members. The annual report of the Council of the Branch was issued on March 26, 1925. At that time there were 1,423 members, or 74.1% of the total number of practitioners. The Victorian Branch had 1,182 members according to the list supplied by the Council. On May 20, 1925, at the opening of the new building of the Branch, it was announced that there were 1,185 members or 75.43% of the number whose names appear on the medical register. The Queensland Branch had 372 members on the first day of the year or 74.25% of the total number of practitioners. The South Australian Branch comprised 336 members out of a total number of 398. Of these eight were resident in Broken Hill. Only four names with addresses in Broken Hill appear in the register. The proportion is therefore 83.26%. The list of the Western Australian Branch contains 177 names. This number has since been increased to 180, according to the annual report of the Council on March 22, 1925. The proportion is, therefore, 78.26%. The Tasmanian Branch list contains 95 names or 60.57% of the total number of names on the medical register.

This journal has a weekly circulation of 4,500. Of this number about 3,650 are addressed to members of the Branches, to the Branch offices and to authors of articles, 130 to other medical periodicals on the exchange list, approximately 150 voucher copies are sent to advertisers, about 100 are kept in reserve for casual sales and for members who join during the course of the year and desire a complete file of the journals for the year, about 250 are sent to learned societies in Australia, Great Britain, Ireland, British possessions and foreign countries, libraries, government departments and universities, and about 200 are sold to subscribers, including medical students. An open offer is made to medical students to obtain the journal at a reduced subscription rate. This offer applies to Branches which make provision for medical students to become honorary associates without the payment of a subscription. THE MEDICAL JOURNAL OF AUSTRALIA is offered to these honorary associates of the Branches at twelve shillings and sixpence a year. The only Branch which has hitherto made these arrangements is the New South Wales Branch. To all others the subscription to the journal is two pounds (two pounds five shillings if sent to places outside Australia).

All medical practitioners are eligible for election to the British Medical Association. Applications must be signed by two members. The election takes place by a vote of the Council of the Branch or of a committee of the Council. The subscription to the New South Wales Branch is five guineas; members within three years of graduation and practitioners who have retired from active practice or who have attained the age of seventy-five years, pay three guineas. Permanent whole-time medical officers of the public services pay four guineas. When a husband and wife residing together are members, their joint subscription is two guineas less than it would be if paid separately.

The subscription to the Victorian Branch is four guineas for town members and three and a half guineas for country members. Junior members pay two and a half guineas.

The subscription to the Queensland Branch is five pounds for town members and four pounds for country members. Junior members are required to pay two pounds ten shillings.

In the South Australian Branch the subscription is four pounds five shillings, which includes the privilege of using the University Library. Members living in the country pay three pounds fifteen shillings and graduates of the Adelaide University of not more than three years' standing pay three guineas.

The Western Australian Branch charges its members in Perth or Fremantle four guineas. Country members pay three guineas and members who are junior resident medical officers at public hospitals pay two guineas.

The subscription to the Tasmanian Branch is a flat one of four guineas.

In view of the fact that substantial sums have to be remitted to London for Association expenses in accordance with the Articles and By-laws (not as is often stated for the supply of copies of *The British Medical Journal*) and to the Australasian Medical Publishing Company, Limited, for a supply of copies of THE MEDICAL JOURNAL OF AUSTRALIA, the subscription rates are relatively low. The office work in all the Branches and particularly in the larger Branches is heavy and costly and the organization is demanding a rapidly increasing amount of time and energy. This work is undertaken by an honorary secretary. In some Branches there is a lay secretary as well. The work of the Federal Committee of the British Medical Association in Australia has grown very greatly during the past few years and the time is fast approaching when a separate secretariat will be needed. The members will recognize that they are receiving numerous and valuable privileges for a very moderate annual contribution. Within a short time the rate in some if not all of the Branches will have to be raised.

The Medical Journal of Australia

SATURDAY, JUNE 20, 1925.

Medicine as a Calling.

Six years ago the first Education Number of The Medical Journal of Australia was published. Before that date no attempt had been made in any medical journal in the Commonwealth to deal in detail with the medical curriculum, with the scope and quality of the training given to students at our medical schools and with the duties, responsibilities, privileges and prospects of medical practice. The usual method of presenting a large mass of details in the same manner year after year was avoided, for the result of reiteration is that the matter is not read. A scheme was devised to infuse interest into the descriptions and to render them of greater use. The scheme involved the publication of principal articles dealing with the medical schools and the curriculum in the first year, with the public medical services in the second, with the defence medical services in the third, with medical research in the fourth and with medical practice in the fifth. After that the cycle would begin again. The remainder of the issues were to contain as much information as might appear to be necessary for the guidance of parents and guardians who are considering the choice of a calling for their sons, daughters or wards. The first cycle was completed last year and the second cycle begins with this issue.

In the first Education Number we published a report of a committee appointed by the Editor of The Medical Journal of Australia. This report contained proposals for the reform of the system of medical education. It was based on some suggestions made by the members of the Edinburgh Pathological Club. The proposals were submitted to the three Deans of the Faculties of Medicine in Australia and were carefully considered by them. They were found to be too revolutionary for immediate acceptance. Notwithstanding the refusal to endorse these proposals, the curriculum is today appreciably nearer the reconstructed curriculum included in the report than the most sanguine member of the committee dared to anticipate. The systematic lecture was regarded as a time-robbing and usually not a satisfactory instrument. The student can read, mark, learn and inwardly digest more information in one hour than he will acquire at a lecture. In the articles published in this issue it will be noted that the number of systematic lectures is being sensibly reduced and that the time allotted to practical work is being augmented. The suggestion of the Edinburgh Pathological Club to continue the teaching in the fundamental sciences throughout the whole curriculum has not yet been adopted, but it is apparent that this idea has taken root, for the teaching has been modified and biochemistry, biophysics and biology are now presented in direct relationship with medical problems. An attempt is being made to link up the training in the physiological laboratory with the biochemical work in the wards. The demonstrations in regional and applied anatomy have been brought much closer to the earlier study in the anatomical department. While we should have wished that the reform had been introduced more rapidly and with less reluctance, the progress that has been chronicled during the five years, suffices to render it certain that the old curriculum is doomed and will soon be replaced by one not unlike that presented in the first Education Number.

Those hesitating at the threshold of the medical edifice will realize that the years of student life are full years, that there is much, very much to be learned and that a special aptitude is required for a successful career. The medical profession is becoming fuller than it was. Formerly it was possible for a young man with commercial tendencies to scramble through the course and with the aid of bluff to earn a substantial income within a few years of starting. Keener competition, more searching examinations, a better comprehension on the part of the public of medical affairs and the extension of contract practice, are combining to render this undesirable result less probable. Those who enter the medical schools, should remember that medical practitioners have a sacred trust to fulfil. While it is necessary to insist on reasonable

remuneration for services rendered, the practitioner should be prepared to exercise all his skill and to apply his knowledge to the best of his ability when treating a patient, quite irrespective of the means of the patient or of the size of the reward. Greed or sordid commercialism are incompatible with high professional ideals. If the medical profession would have protection from competition by charlatans and untrained practitioners, it must give evidence that its members are competent. The patient trusts his doctor and expects him to apply all his knowledge and skill when his aid is requisitioned. That trust is peculiar in many respects and is sacred. He who accepts it, is bound in honour to have used his time well in the study of his profession and to have a strict sense of ethical behaviour.

The profession of medicine is the best of all callings for those who have the necessary intellectual and social attainments. If the calling is not to the liking of the young man or woman, if study is irksome and the problems of disease have no fascination for him or her, if human suffering does not awaken an intense desire to contribute to its alleviation, the choice of medicine had better be discarded and something else be selected in its stead. To those who feel the call, medicine is the most captivating and irresistible of all mistresses.

THE BRITISH MEDICAL ASSOCIATION.

THE year 1925 is a very important year in the history of the British Medical Association. The Branches of the Association in Australia have requested Dr. W. N. Robertson, the Vice-Chairman of the Federal Committee, to travel to England to represent the medical profession in Australia at the ceremony of the opening of the new home of the Association in Tavistock Square, London. The Association has acquired a valuable, historic property in the heart of Bloomsbury. This capacious house has been remodelled and adapted to the needs of a great organization. The ceremony will be held on July 14 and on this occasion Dr. Robertson will present a carved President's chair as a gift from the members in Australia and will convey a message of congratulations and good will.

Recently the Victorian Branch of this organization rebuilt its premises and celebrated the opening of its magnificent new home in a festive manner.

The importance of the possession of Association buildings suitably constructed for the work to be performed does not rest on the fact that a good home indicates financial stability. Neither does it merely indicate that the members desire a comfortable club house. It has a far deeper and sounder significance.

Ninety-three years ago Charles Hastings conceived the idea that there was need for a union of medical practitioners to render the profession more useful to the community and to raise the dignity and honour of the profession to an unassailable height. He founded the Provincial Medical and Surgical Association in the midlands of England. At first it bound together the doctors practising in the provincial towns and country places, but little by little it grew in size and importance until it covered the whole of the United Kingdom. The name was changed to the British Medical Association, but its objects remained as Charles Hastings had conceived them. After a period of forty-two years the Association gained a legal status by incorporation under the *Companies Act, 1862,* as an "Association not for profit." The objects are defined in the Memorandum of Association as the promotion of medical and the allied sciences and the maintenance of the honour and the interests of the medical profession. It will be noted that the first object is the furtherance of knowledge for the benefit of mankind. For nearly a century this great organization has been the most powerful body in the British Empire in its endeavour to improve the practice of medicine and to increase the power of the practitioner to combat disease and to improve the general health of the community. The Association has had many opponents and many bitter enemies. It could not have attained its present position without provoking opposition and enmity. But those who have attacked it, have never been able to belittle the value of its work in promoting medical and the allied sciences. The parent body holds annual meetings for the discussion of medical and similar problems. The leading authorities in

every branch of medicine take part in these discussions. Each of the Divisions in Great Britain and Ireland arrange scientific meetings for the benefit of its members. The Association awards prizes for scientific work and offers scholarships. It publishes a very valuable weekly journal. From time to time committees have been appointed to investigate special problems in connexion with disease and many admirable reports have been issued by these committees. In Australia and other British dominions overseas the Branches are particularly active. Our own six Branches hold regular meetings for the discussion of medical and surgical problems. Within recent times several special sections of the Branches have been formed, so that the more highly technical aspects of these medical specialities can be the better handled by practitioners who devote their attention exclusively to them. The Branches of the British Medical Association in Australia through the agency of the Federal Committee have taken over the control of the Australasian Medical Congress and recast this institution on modern lines. The Branches of the Association in Australia founded a company twelve years ago in order that this journal might come into being for the promotion of medical and the allied sciences. The Branches in some of the States are concerned with the organization of post-graduate courses. There can be no second opinion concerning the importance of this organization from the point of view of the public weal.

The second object is scarcely less weighty than the first. Unless the members of the Association are imbued with a sense of dignity and rectitude of the medical profession, all the knowledge in the world could not enable them to gain the confidence of the public. The British Medical Association stands for the highest standard of ethics and the strictest interpretation of the ethical code. Every member of the medical profession should wish to join this body in order that each one may help in attaining the two main objectives.

The new homes of the British Medical Association are of significance because it is becoming increasingly difficult to attain the two objectives and success can be reached only in the presence of a suitable environment for the work and by the provision of adequate facilities. A fine building does not necessarily imply good work, but elaborate organization is rendered more complicated in cramped surroundings. The work of the British Medical Association is its real monument; its fine home is an emblem. All the Branches of the Association in Australia have splendid buildings. A cordial welcome is extended to each graduate of medicine as he passes out of the medical school. He is unwise who ignores the invitation.

The Opening of the New B.M.A. Building in Melbourne.

On May 20, 1925, the President and Council of the Victorian Branch of the British Medical Association conducted the important ceremony of opening the new building of the Branch. The building has been erected on the site of the former Medical Society Hall, at the corner of Brunswick and Albert Streets, East Melbourne. Among the guests invited to be present were the Honourable F. W. Eggleston, M.L.A., Attorney-General in Victoria, the Lord Mayor of Melbourne, Dr. C. H. E. Lawes, representing the New South Wales Branch of the British Medical Association, and the official representatives of several kindred societies.

Dr. F. L. Davies, the Honorary Secretary, read messages of congratulation and regret for inability to attend from Dr. R. B. Wade, the President of the New South Wales Branch of the British Medical Association, Dr. R. Marshall Allan, M.C., Honorary Secretary of the Queensland Branch, and Dr. J. Lockhart Gibson, Dr. F. S. Newland, C.B.E., D.S.O., Dr. J. A. Dick, C.M.G., and Dr. Gregory Sprott, members of the Federal Committee of the British Medical Association in Australia.

History of the Undertaking.

Dr. R. H. Fetherston said that as convener of the Building Sub-Committee of the Council it was his pleasing duty to ask the President formally to declare the building open. For several months past they had watched the building grow with an interest which progressed with the structure and they were now in the happy position of being able to invite the members of the Branch to make an inspection.

Dr. Fetherston said that perhaps it would not be out of place if he reviewed briefly the history of the recently demolished Medical Society Hall, on the site of which the present building had been erected.

In the late 'fifties or early 'sixties of last century a triangular block of land situated at the corner of Victoria and Latrobe Streets and now held by the Royal Society of Victoria, had been granted by the

Government to the medical profession. The land had been held for a few years, but as its situation was not as convenient as had at first been anticipated, no effort had been made to erect a building; the site had eventually been surrendered. The Medical Society had remained without a home for a number of years and had held its meetings at the Melbourne Hospital.

Towards the end of the 'seventies an effort in which his father and Dr. Aubrey Bowen had taken a leading part, had been made and consummated in the erection of the Medical Society Hall in Albert Street, East Melbourne. It was on account of his father's prominent association with the origin of the old building that he had felt such a keen and sentimental interest in the project for its replacement by a more commodious and modern structure.

Many happy, interesting and instructive hours had been passed in the Hall of the Medical Society of Victoria, but as their organization had developed, they had outgrown its accommodation. Important milestones in the progress of the organization of the medical profession in Victoria were the amalgamation of the Medical Society of Victoria and the Victorian Branch of the British Medical Association in 1902 and the strenuous effort in 1911-1912, as the result of which the membership of the Victorian Branch had risen from three hundred and fifty to approximately eight hundred practitioners. The work of Dr. W. R. Boyd would never be forgotten in connexion with that conspicuous advance in their organization. At the present time the members of the Victorian Branch numbered 1,185 and to be outside the Branch was to be outside the profession.

When the question of providing a new building for the Victorian Branch became a matter of urgency, consideration had been given to several schemes, one of which was that of making structural additions to the Medical Society Hall. It had been ascertained that the building would support another storey, for the walls were four feet in thickness. On the limited area of land, however, four feet could not well be spared and in the present reinforced concrete building three feet had been gained in the width of the hall. The material obtained from the old building has been sold for £20. By the issue of debentures, for which subscription had readily been made by the members of the Branch, they had been able to complete the erection and furnishing of their present modern structure at a cost of £11,000.

The ground floor was occupied by the offices of the Branch and the hall which was capable of accommodating three hundred and fifty people. On the first floor was the library and a room which, designed as a writing room, would also be very convenient for meetings of the Council and of the various Sections of the Branch. Above were the caretaker's quarters and nothing had been spared in the endeavour to provide the caretaker with a model flat.

While the old building was in process of demolition he had made careful search with the cooperation of the workmen for some souvenir of the laying of the foundation. In this there appeared to have been some oversight on the part of their predecessors, for nothing of the nature of records could be found. Not even a bottle containing a memento of the laying of the foundation had been discovered.

In the erection of their present building they had taken care to provide records which in the future would be historic.

There was no foundation or corner stone in a modern reinforced concrete building, but behind the marble tablets in the vestibule had been placed in leaden caskets a record containing a brief history and photograph of the old Hall, the names of those comprising the Building Sub-committee of the Council, the names of the architects and contractors and a complete list of the members of the Branch, members of the Council and office bearers.

Should it be found necessary at a future date to enlarge the present building, provision had been made in the construction of the foundations, columns and supports for a third storey.

It was his privilege to ask the President to declare the building open for the benefit of the medical profession in Victoria as represented by the Medical Society of Victoria and the Victorian Branch of the British Medical Association.

President's Address.

Dr. S. S. Argyle, Chief Secretary and Minister of Health of Victoria, extended a welcome to the Attorney-General, the Lord Mayor and to the representatives of kindred associations who were present. Dr. Argyle then delivered his address in the following terms:

To me by the accidental combination of time and circumstance has fallen the very great honour as President for the present year of the Victorian Branch of the British Medical Association of declaring these new premises open.

In doing so, it seems to me to be opportune to take stock of the present position of the medical profession (whose official home in Victoria this building is), its past activities and its future obligations both to its individual members and to the community as a whole.

Nearly fifty years have passed since the old building now removed was erected upon the present site by the Medical Society of Victoria with which the Victorian Branch of the British Medical Association is now associated.

On the ninth of January, 1878, the old building was erected upon a piece of land granted by the Government of Victoria for scientific purposes. That event may justly be regarded as the first milestone in the history of the progress of the medical profession in Victoria. That history commenced thirty-two years previously when in 1846 the Port Phillip Medical Association was formed. It is interesting to note that the foundation stone of the Melbourne Hospital was laid in the same year.

Disregarding the first thirty-two years as in a sense prehistoric, we come to the ninth of January, 1878, when the old building was erected. Let us

now ask ourselves what progress our profession has made during the forty-seven years that have elapsed from that date to this present day, when we meet together to celebrate the erection of the second milestone in the long trail which will ultimately constitute our history.

Numerical Strength of B.M.A.

In 1879, when the Victorian Branch was founded, it had sixty-two members; today there are 1,185. In the period under consideration the population of Victoria has just about doubled, but the members of the Branch in the same period have increased almost twenty-fold. In 1879 the members were mostly metropolitan; today they are State-wide. In 1879 the majority of the practitioners in Victoria were trained abroad; today with a few exceptions our ranks are recruited from our own medical school which was founded in 1863.

Medical Progress.

Next let us consider the very great increase that has taken place in our knowledge.

Probably the greatest medical discovery of modern times was Lister's application of the researches of Pasteur to the science and art of surgery. By his introduction in 1875-1878 of the principles of antiseptic surgery, Lister probably conferred the greatest boon upon suffering humanity that it has known since the dawn of history. It is hard to realize that as recently as 1878 true antiseptic surgery was little understood or practised by the surgeons of Victoria.

In the early 'eighties, however, it was a common practice in the operating theatre of the Melbourne Hospital for all major operations to be performed beneath a continuous spray of a solution of carbolic acid which dropped gently as the dew from heaven upon operator, assistants, nurses and spectators as well as upon the open wound of the unconscious patient.

Based as it was upon the infant science of bacteriology, antiseptic surgery was only the forerunner of that science itself which began to force itself upon the notice of both physicians and surgeons about that period. Bacteria as a cause of disease as well as the sole cause of all putrefactive processes became more and more recognized as time went on. In 1876 the specific organism responsible for anthrax was isolated and in the early 'eighties leprosy, typhoid fever, tuberculosis, diphtheria and tetanus were all recognized as having a bacterial origin, although it was in every case several years later that the final recognition came. The textbooks from which the students of those days learnt their medicine as late even as 1890, often refused to recognize the specific bacterial cause in many of these diseases.

With the discovery of the cause, prevention and treatment took on a new aspect. It was not enough to localize the specific organism; the problem of transmission and introduction into the human body had to be faced. Diseases whose spread was often mysterious in character, were more easily handled and stamped out with the searchlight of bacterial knowledge illuminating the previously darkened page. Preventive medicine became a real force in the community. Typhus fever, that filth disease of gaols and slums, in the light of the knowledge of its specific cause and its transmission through body lice, ceased to be except under the stress of war and not even then when controlled by properly organized medical services.

Typhoid fever has practically vanished from large cities, where human excrement is removed by modern sewerage systems. Here in Victoria in 1878 the deaths from that cause per 100,000 of the population were 50.7, while today the ratio is only 2 per 100,000. Given adequate sewerage to our country towns it should vanish altogether.

In 1878 the deaths from diphtheria in Victoria were 65.4, while today they are only 7 per 100,000.

Tuberculosis in 1878 claimed 167.8 of our youth in every 100,000 of the population; today, those figures have steadily dropped to 71.1.

But although the causation of putrefaction and superficial and localized sepsis was definitely settled and the surgeon's art enormously advanced by the universal adoption of the antiseptic principles of Lister, much remained to be done in that field. Surgery had not yet emerged from that dark period when the mortality rate in major operations was so high as to make the risks of operation greater than the chance of recovery in operations which at present are carried out daily in our hospitals with practically no risk at all. To quote from the daily press of the period: "The operation was highly successful, but the patient died shortly afterwards."

At the Melbourne Hospital in my own experience a certain class of operation was invariably fatal, even when performed by the most skilful surgeons of the day and in the light of their knowledge they were skilful, but they were groping in the half-light before the dawn.

By a process akin to evolution aseptic surgery gradually replaced antiseptic methods. Carbolic sprays and strong corrosive chemicals made way for surgical cleanliness carried to the last detail of systematic method. The atmosphere of the operating theatre was no longer regarded as the principal vehicle of surgical sepsis. The hands and clothes of the operator and his assistants, the instruments, dressings and ligatures, the skin of the patient, all must be surgically clean before an operation even of the simplest kind is undertaken today. And the result is triumphant, fearless surgery of any region of the body with practically no risk of operation *qua* operation at all. A mortality of 100% has been by these methods reduced to nil. A magnificent record and one of which the profession may well be proud, but only rendered possible by the illuminating genius of such men as Pasteur and Lister.

Pathology and Physiology.

But while the bacteriologist was revolutionizing surgery and medicine, other branches of medical science were not idle. Pathology in the light of

bacteriological knowledge as to causation took on a new lease of life and was stimulated to further and deeper microscopical and chemical research. Physiology assisted by biochemistry and physical science also moved forward in no uncertain manner. Much that was obscure in the chemistry and pathology of the blood, reacting to the various toxins and antitoxins of blood-borne diseases, was rendered intelligible by the researches of the many observers at work in the laboratories of the world. Serums, antitoxins and vaccines stood the test of the scientific method of proof and rendered easier the task of diagnosis and treatment of these conditions.

The true meaning of immunity from disease, long recognized but little understood, became clear as day in the light of the accumulated knowledge of toxin and antibody.

Diphtheria, tetanus, rabies and many other dread diseases lost their terrors and serum therapy took its place amongst the recognized methods of treatment in the armamentarium of medicine.

In the diagnostc field also investigators were busy. Wassermann and Widal gave their names to what are now recognized tests for the presence of syphilis and typhoid fever respectively and these are only two of many similar tests which have been accepted as helpful, if not always conclusive, in the diagnosis of many of the communicable diseases.

In epidemic and tropical diseases also the work of scientific biological investigations has reaped a rich harvest of invaluable information to add to the resources of mankind in the never ending struggle for existence against parasitic and insect disseminated disease. To name a few of these only, malaria, yellow fever, filariasis, sleeping sickness, *pestis* and hookworm are all dread diseases which rendered life in tropical regions not only difficult but also in some instances impossible for the white races. Thanks to the patient work of many investigators in many lands, man is able to cope successfully with these scourges wherever they occur. And all this great work has been carried out in the period in the world's history which lies between our two milestones.

The greatest contribution to medicine by the physicists during this period was undoubtedly the discovery of the X-rays by Röntgen in 1895. The enormous value of this method in both medicine and surgery is almost impossible to over-estimate. As technique and apparatus steadily improve, the scope of X-ray diagnosis as well as its accuracy and reliability broaden and increase from day to day. No hospital is complete, no textbook up to date, no practitioner safe where the X-ray apparatus is not regularly used as part of the daily routine in the accurate diagnosis of injury and disease. Yet thirty years ago, X-rays were unknown.

The use of X-rays for treatment of disease is now also recognized as extremely valuable in certain conditions. In diseases of the skin the modern skin specialist would be lost without it, while its value in certain varieties of cancer cannot be gainsaid, though much remains to be done before it can be claimed as a positive cure for all cases of that rapidly increasing scourge of mankind.

The discovery in 1898 of radium by Monsieur and Madame Curie after long and patient search, added yet another physical weapon for the treatment of cancer and allied conditions.

Nor were the chemists idle during this period. Many diseases of nutrition which had long puzzled the physiologists and physicians of that day, are now more clearly understood by the light that has been thrown upon them by the hypothetical discovery of vitamins and the actual isolation of many suspected but previously unknown organic ferments. Scurvy, rickets, beri beri are now known as deficiency diseases, owing to the lack of some element in the food supply of those suffering from them and their treatment has simply resolved itself into the supplying of the deficient substances which, though as yet unisolated, are known to exist in certain other foods.

The fact that the deficiency in foods, which is the direct cause of these diseases, is due to modern methods of food preparation and food preservation, opens up a wide field of investigation and speculation as to the causation of other diseases the cause of which is unknown and which are not at present classified as deficiency diseases. For instance, is cancer, a disease which is rapidly increasing in all civilized countries, caused wholly or in part by our artificial method of food preparation and preservation?

The work of the physiologist and the organic chemist in elucidating the functions of the many so-called ductless glands, has also materially assisted in the treatment of certain diseases. The separation of the active ferments produced by these glands and their administration for therapeutic purposes, marks a definite advance in our methods of handling and controlling a very distinct class of disease.

The functions of these glands and their influence upon many body processes was quite unsuspected forty or in some instances even twenty years ago, while the science of endocrinology is entirely a development of the last decade and may still be considered to be in its infancy.

Turning from curative to preventive medicine, it must be apparent that the epoch-making discoveries which I have detailed in the causation of many diseases, have widened the scope and increased the efficiency of hygienic measures designed to prevent the incidence and spread of disease. In such a disease as tuberculosis, where the active cause of its spread is known to be chiefly the passing on of the infecting agent, namely the *Bacillus tuberculosis*, from person to person, the obvious preventive measures to adopt are notification and segregation of the affected individual, with improvement of the environment and the adoption of the requisite curative measures in cases where the disease can be arrested. Such measures have been adopted in most countries with the result that the mortality from tuberculosis

throughout the world has diminished by over 50%. Notwithstanding this hopeful improvement tuberculosis still stands today as the greatest scourge of the human race and the cooperation of all, governments, practitioners and private citizens alike, is required to curtail further its ravages amongst those valuable lives in the very height of their usefulness.

In addition to preventive medicine we have to consider also the great advances that have occurred in the great medical services controlled by the State. In England a Ministry of Health has been created by which all or rather many of the medical services formerly scattered throughout the numerous State departments, have been coordinated under one responsible Minister.

In our Commonwealth created since 1878 all the quarantine services have been concentrated under one director who is a Federal officer, and Australia's defence against diseases imported from overseas is relieved from the dangers of divided control. In Victoria the treatment of our insane has very greatly improved, both in methods of classification and housing, although in the matter of accommodation much yet remains to be done. In this matter it is interesting and encouraging to note that the ratio of insanity to the population is falling.

In the Education Department the system of medical inspection of school children has been inaugurated and although incomplete at present, there is evidence of good results therefrom.

Realizing the importance to the community of the control of venereal disease recent governments have introduced restrictive legislation and established venereal clinics for the registration and treatment of this dangerous menace to future generations. In these measures they have had the whole-hearted cooperation of the medical profession.

Results of Progress.

What then, has been the net result to the community of all these discoveries and activities during the forty-seven years between our milestones?

The vital statistics of Victoria show that in 1878 the deaths per thousand of the population amounted to 14.56, while in 1924 the number stands at 10.05 per thousand, or a net saving of 4.51 per thousand, which means in round numbers over eight thousand lives saved *per annum* on the present population basis.

The average annual death rate over the decade 1895-1904 was 13.30 per thousand of the population. Assuming this rate to have been constant over the period 1905-1924, it would have resulted in approximately 373,500 deaths. Actually the number of deaths in the twenty years was 316,473, being at the average rate of 11.27 per thousand of the population. This falling death rate represented a saving of approximately 57,000 lives for the period covered. Many causes have, of course, contributed to this, but in the light of the facts that I have placed before you, it is not unreasonable to assume that a considerable proportion of the saving is due to the increase of knowledge that has occurred and the better equipment of the medical profession, both in its curative and its preventive branches, in its ceaseless warfare against death and disease.

War Service.

During these years there occurred the greatest war in history and the members of this Branch were called up in common with their brethren in the homeland and the other Dominions to bear their part in the great struggle. How they responded to the call is best illustrated by the inscription upon the beautiful bronze memorial to their illustrious dead, which is now installed in the entrance hall.

During and at the end of the war the membership roll of the Victorian Branch was 966. Of that number 407 enlisted for active service, about 42.17%. Of those who enlisted 10.56% (forty-three in all) paid the supreme penalty. One-third of those who remained behind, also did war service.

The Future.

Looking back over the forty-seven years since our formation, one cannot refrain from marvelling at the tremendous additions that have been made to the sum of human knowledge in that short space of time. Remove them and how little remains of modern medicine and surgery as we know them today.

The lesson to be learnt is that we practitioners are only the instruments who carry out the work of our profession, based upon the foundations of fundamental truths discovered for us by the great men of this and of a previous generation. The application of those truths to the curing and prevention of disease is our task and research work in the laboratories and schools is the keystone of the arch upon which we build our edifice. Buckle, in his "History of Civilization," wrote:

> The discoveries of great men never leave us; they are immortal; they contain those eternal truths which survive the shock of empires, outlive the struggles of rival creeds and witness the decay of successive religions.
>
> The discoveries of genius alone remain; it is to them that we owe all that we now have; they are essentially cumulative and giving birth to the additions which they subsequently receive, they thus influence the most distant posterity and after the lapse of centuries produce more effect than at the moment of their promulgation.

In this building, we have for the present a suitable home where members can meet and compare notes as to the experiences met with in their daily work, check them and winnow out the grain from the chaff. Here let us listen to words of wisdom from our seniors and our contemporaries and encourage our younger and less experienced members to relate the details of their clinical work. Here we may place on record our data for future guidance and comparison with the work of others in other lands and so by every means in our power help to fulfil the great objectives and aspirations of the widespread organization to which we have the honour

to belong. These objectives and aspirations, as laid down by the rules of our Association, are:

> To promote the medical and allied sciences and to maintain the honour and interests of the medical profession; to form a bond of union among the members of the profession and a medium through which their opinions can be easily ascertained and expressed; to promote fair and honourable practice; to suppress unqualified practice; to decide upon questions of professional usage and courtesy.

In declaring this building open, I desire in the words of Dr. Osburn Taylor, to dedicate it—

> To the noble profession, whose gospel is the healing of mankind, whose honour is the Hippocratic Oath.

Congratulations.

The Attorney-General, said that it was his very great pleasure on behalf of the Government of Victoria to congratulate the Victorian Branch of the British Medical Association on the occasion they were celebrating. They had succeeded in equipping themselves with an ideal place for the discussion of their scientific problems and he wished them every success.

The community was indebted to all the learned professions and particularly to that of medicine; its obligation to the medical profession was not perhaps sufficiently realized by the community as a whole. The practice of medicine, although affording a means of a livelihood, involved an immense amount of self sacrifice and social service. As a member of another profession he envied medical men the high rôle devolving upon them in the fortunate conjunction of the healing art with the pursuit of high ideals in science.

He congratulated the President on his address and assured them that the Government of Victoria was willing and anxious to assist in the realization of the ideals of preventive medicine outlined by Dr. Argyle. He expressed the hope that the new home of the Victorian Branch of the Britsh Medical Association would witness many pleasant gatherings devoted to the promotion of professional ideals and social intercourse.

The Lord Mayor said that he felt great pleasure in the opportunity afforded him of taking part in an historic function. He had been very much interested in Dr. Fetherston's historical sketch and in the means he had adopted to insure that if ever the new building were pulled down, records of interesting data would be found.

As a member of the Committee of Management of the Melbourne Hospital he could endorse the remarks of Mr. Eggleston regarding the social service rendered by the medical profession; no one could estimate the value of its services willingly given to the medical charities.

In listening to Dr. Argyle's able address he had been impressed with the progress of medical science and it was reassuring to know that prevention of the rise and spread of disease was in the forefront of the aims of the medical profession.

Dr. C. H. E. Lawes said that it was his privilege in the unavoidable absence of the President, Dr. R. B. Wade, to represent the New South Wales Branch of the British Medical Association and to convey from the sister Branch cordial congratulations and felicitations to their Victorian colleagues on the occasion of the opening of the new building.

It was an excellent thing for members of the several Branches of the British Medical Association in Australia to exchange visits, to meet in the flesh men whose names they were familiar with through the pages of the journal and to avail themselves of the ever present opportunities for learning something. He tendered his compliments to Dr. Argyle on his instructive and eloquent address.

He hoped that in the medical world internal jealousies were a thing of the past. Healthy rivalry, of course, always existed, but petty jealousy, envy and carping criticism were alien to their ideals. A very kindly feeling obtained at present between the Branches in Victoria and New South Wales. They had recently passed through troublous times in New South Wales, but all along they had been assured of the sympathy and moral support of the Victorian Branch. The Victorian Branch had been as gratified as they were themselves at the successful termination of their long litigation.

Dr. Lawes expressed his admiration of the new building and of the supremely beautiful War Memorial. He wished the members of the Victorian Branch many happy and profitable hours in their new home.

Dr. H. Douglas Stephens, Vice-President of the Victorian Branch, said that the Branch entered on its activities in the new building under very happy auspices in that they had received the kind felicitations of the Ministry, the citizens, the legal profession and the sister Branches of the British Medical Association in Australia. He wished to express their appreciation and thanks to the Attorney-General, the Lord Mayor and Dr. Lawes.

Dr. R. J. Bull, Vice-President, proposed a vote of thanks to the architects, Messrs. Stephenson and Meldrum, the contractors, Messrs. D. Donald and Company and the clerk of works, Mr. Harrison. These gentlemen had always met the Building Sub-Committee with every courtesy and had put their best efforts into a work which represented the practical realization of the hopes and aspirations of the Victorian Branch of the British Medical Association for many years. They were assured that all the available space had been utilized and that the best workmanship had been brought to the building. He hoped members would adopt the suggestion of Dr. Fetherston and inspect the caretaker's quarters.

Mr. A. G. Stephenson said that he considered that he was privileged in being present and expressed the thanks of his partners and himself and the contractors for the kind remarks of Dr. Bull. It had been his endeavour from the beginning to clothe the building with something of the dignity of the purpose to which it was to be devoted. The Building Sub-Committee had been considerate throughout and he wished to pay a tribute to the energy, patience and tolerance of Dr. Fetherston.

Presentation to Dr. R. H. Fetherston.

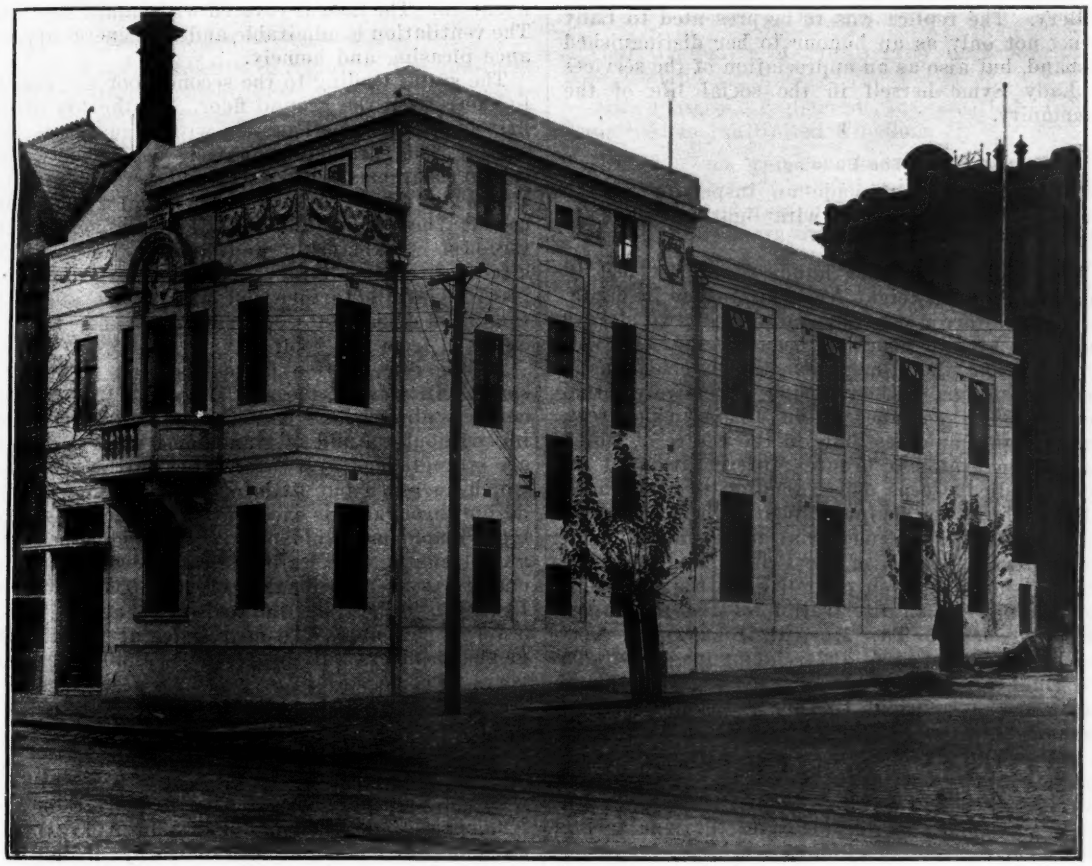
Dr. J. Newman Morris, Chairman of Committees of the Council of the Victorian Branch, said that his duty was extremely pleasant and he sincerely hoped a matter of surprise to Dr. Fetherston. He was about to ask Dr. Fetherston to accept a remembrance of the occasion, but before doing so wished to express briefly the Council's sincere appreciation of the untiring energy displayed by Dr. Fetherston in all matters connected with the new building.

Dr. Fetherston had not told them a fraction of what he had done. He had been the prime mover in the final decision to erect the building on the site of the old Hall, a decision which had been reached only after many discussions. The present site had throughout been strongly advocated by Dr. Featherston. On almost any afternoon of any week during the past eight months Dr. Fetherston's "little old car" could have been found in the neighbourhood of the new building and Dr. Fetherston himself on the spot working in the interests of the Branch. He seemed to know all about the reinforced concrete process and almost unaided selected the furnishings which all would agree, did him great credit.

It had been said that there was no occasion but it produced the man and their man to lead in the negotiations and other work relative to the new building had been Dr. Fetherston.

> Like a father he has nursed with devoted hands our building. Those who were near him at the time of its building, will remember this devoted friend who was so much interested in its development and whose very soul has become a part of its memory.

This sentence, used on the occasion of the opening of the John B. Murphy Memorial Building in Chicago, epitomized the efforts of Dr. Fetherston in connexion with the building of the Victorian Branch.



New B.M.A. Building, Brunswick and Albert Streets, Melbourne.

They had been at a loss to choose a gift without consulting Dr. Fetherston and he would therefore ask him to accept a cheque by means of which he might purchase such a memento as most appealed to him.

Dr. Fetherston, in expressing his thanks for the kindly feeling which had prompted the presentation, said that Dr. Morris would be pleased to know

that he had taken him completely by surprise. He now understood why the Chairman of Committees had been apparently reluctant to speak.

His work in connexion with the new building had been a pleasure throughout and the various discussions with the architects and builders had been most interesting. He was deeply grateful for their gift with which he would buy something that his children would treasure.

Portrait of Sir George Syme.

THE PRESIDENT invited inspection of a replica of Mr. John Longstaff's portrait of Sir George Syme, the original of which was at present in the National Gallery. The replica was to be presented to Lady Syme, not only as an honour to her distinguished husband, but also as an appreciation of the services of Lady Syme herself in the social life of the community.

The Building.

The members then made an inspection of the premises and were served with light refreshments in the library.

The site measures one hundred and six feet in length and twenty-eight feet four inches in depth. On it a reinforced concrete building of two storeys above the ground floor has been erected. As will be seen from the illustration the exterior has a pleasant design without being excessively ornamented. The entrance is in Brunswick Street. There is an ample vestibule in the centre of which stands the exquisite bronze representation of an Army Medical Corps officer tending to a wounded soldier which the sculptor, Web Gilbert, designed and executed as the memorial to the members of the Victorian Branch of the British Medical Association who have given their lives in the service of their country. An illustration of the monument was published in THE MEDICAL JOURNAL OF AUSTRALIA of January 26, 1924, facing page 90. To the right are the offices of the Branch. These rooms are of sufficient size for their purpose and are suitably fitted. Directly opposite the entrance at the end of the vestibule is the hall. This is an apartment sixty-one feet in length and twenty-seven feet three inches in width. The floor is covered with heavy linoleum. To the right on the side facing Albert Street are high windows reaching from about three feet above the floor level to a height of about nine feet. The lower part of the windows open inwards on hinges attached below. The opaque glass of the windows is simple in design and lends an artistic appearance to the casement. Above the windows are long ventilating openings. Higher than these openings there are fanlights to provide an ample escape for warm air and at the same time sufficient inlet of fresh air when the wind is from the north. The walls are white. At the end of the hall is a platform and behind it the wall is plane in order that lantern and cinematograph projections may be seen to good advantage without a stretched sheet.

The stairway is well planned and comfortable in the ascent. Above the entrance to the front on the first floor is the room destined for meetings of the Council and of Sections of the Branch and for use by members as a writing room. Over the hall is the library and between it and the landing is a room in which afternoon tea for members can be prepared. The library is provided with alcoves composed of bookshelves jutting out a short distance into the room. In several of these alcoves are highly polished tables that have been dedicated by prominent members of the Branch. There is ample seating accommodation for those making use of the library and suitable arrangements for the librarian. The floor is covered with inlaid linoleum. The ventilation is admirable and the general appearance pleasing and homely.

The stairs leading to the second floor are similar to those from the ground floor. At the top of the first flight is a small pantry with a gas heater for water. The caretaker's quarters comprise two excellent bedrooms with a covered verandah facing Brunswick Street, a large kitchen and a good bathroom. The fittings and sanitary equipment are of the best workmanship and quality. Behind the kitchen over the library is a very large flat roof provided at its further end with a fire escape in the form of jarrah wood stairs. A fine view is obtained from this roof.

In the construction there has been economy of space. In view of the small depth of the site the concrete girders have been carried across the building without the aid of stanchions, while the walls are strengthened by two or three buttress columns which encroach but little on the floor space. The design throughout is excellent. It insures the maximum employment of space with good appearance and strength. The walls are capable of supporting one or two additional storeys. The Victorian Branch is to be congratulated on its acquisition of a very fine home. The floor space at the disposal of the members will prove to be ample for many years to come.

Medical Registration.

SINCE the publication of the last Education Number of THE MEDICAL JOURNAL OF AUSTRALIA no amendments have been made in any of the Australian States in connexion with the Acts dealing with medical registration.

The conditions and qualifications necessary for registration are distinctly different in each of the several States and graduates and diplomates in medicine are required to be registered in each State in which they desire to conduct practice. We have repeatedly drawn attention to the disabilities occasioned by the operation of six different Acts in the Commonwealth. Although progress in this matter is slow, there are indications that the States may in the near future be persuaded to surrender their sovereign rights in this regard to the Federal authority.

Fees for Registration.

In Victoria a fee of five guineas must be paid on application for registration. A further fee of five shillings is charged for the registration certificate.

In South Australia there is an annual registration fee of one guinea. Medical practitioners, however, may pay the sum of five guineas either at the time of registration or subsequently as a commutation of all renewal fees.

The fee for registration in Western Australia is ten guineas.

In Tasmania a registration fee of three guineas is payable.

Qualifications for Registration.

There is no uniformity in regard to the qualifications entitling medical practitioners to registration in the several States. For the sake of clearness the provisions contained in the six Acts are set out in sequence.

In the following paragraphs the persons entitled to be registered in the respective States are specified.

New South Wales.

(i.) Graduates of Australian universities.

(ii.) Graduates of universities in the United Kingdom.

(iii.) Diplomates of the recognized medical corporate bodies in the United Kingdom entitled to registration in the United Kingdom.

(iv.) Persons who are or have been appointed medical officers in His Majesty's sea or land services.

(v.) Persons entitled to practise in a foreign country which has entered into reciprocal arrangements with Australia in this regard, provided that they have passed through a course of study of not less than five years' duration.

(vi.) Persons who have passed through a course of study of not less than five years' duration in a foreign country and are entitled to practise in that country and who pass an examination prescribed by the Senate of the University of Sydney.

No person who is a German or Austrian subject or who possesses a German or Austrian degree only, can be registered.

Victoria.

(i.) Graduates of the Australian universities.

(ii.) Persons who have passed through a course of study of not less than five years' duration in a British university, college or in any foreign university, college or body recognized in that country and who possess a diploma or degree entitling them to practise in that country, provided that the same arrangements obtain in that country for graduates of the University of Melbourne.

(iii.) One person holding the qualifications of the Boston Homœopathic University and College or of the New York Homœopathic Medical College and Hospital may be registered each year.

Queensland.

(i.) Graduates of the Australian universities.

(ii.) Persons who have passed through a course of study of three years' duration, who have passed the examination prescribed in the country in which they have studied and who are entitled to registration in that country.

(iii.) Persons who are or have been duly appointed medical officers in His Majesty's sea or land services.

South Australia.

(i.) Graduates of a university in Australia or New Zealand.

(ii.) Persons registered or entitled to be registered in the United Kingdom.

(iii.) Persons who have passed through a course of study of five years' duration in a foreign country, provided that the standard is not lower than that recognized in South Australia and who have received a degree or diploma and are entitled to be registered in that country, provided that equal rights are granted in that country to persons registered under the South Australian Act.

Western Australia.

(i.) Persons registered under *The Medical Ordinance* of 1869.

(ii.) Persons who hold any one or more of the qualifications in the second schedule and whose diplomas, licences, certificates or other documents were obtained from some university, college or other body recognized for the purpose in the country to which such body belongs.

The person making application for registration must be of good fame and character and be entitled to practise under the qualification by virtue of which he applies to be so registered in the place where the same was granted.

The schedule to which reference is made, contains the following list: Fellow, member or licentiate of the Royal College of Physicians of London, of the Royal College of Physicians of Edinburgh, of the King and Queen's College of Physicians of Ireland, of the Royal College of Surgeons of England, of the Royal College of Surgeons of Edinburgh, of the Faculty of Physicians and Surgeons of Glasgow, of the Royal College of Surgeons of Ireland, licentiate of the Society of Apothecaries of London, of the Apothecaries' Hall, Dublin, doctor or bachelor of medicine or master or bachelor of surgery of some British or Colonial university.

(iii.) Any legally qualified practitioner registered in the United Kingdom under any Act or Acts of the Parliament of the United Kingdom of Great Britain and Ireland. Medical officers duly appointed and confirmed of His Majesty's sea or land service. Any person who shall prove to the satisfaction of the Board that he has passed through a regular

course of medical study of not less than three years' duration in a British or foreign school of medicine and has received after due examination from some British or foreign university, college, or body duly recognized for that purpose in the country to which such university, college, or other body may belong, a medical diploma or degree certifying to his ability to practise medicine or surgery, as the case may be.

Tasmania.

(i.) Graduates of all British universities.

(ii.) Persons entitled to be registered in the United Kingdom.

(iii.) Persons who are medical officers in His Majesty's sea or land services.

(iv.) Graduates of a medical college of Class "A" in one of the States of America, provided that they have passed through a course of study of four years' duration and have received a degree or diploma from that college and provided that they hold a certificate or licence entitling them to practise in one of the States of America.

Methods of Dealing with Offences.

Lack of uniformity in the several States in regard to methods of dealing with offences is as noticeable as that in connexion with registration. While the offender in one State may be effectively called upon to account for his actions, the guilty person in another State may with difficulty be punished for his offence.

In New South Wales if it appears to the satisfaction of the Board that any person registered as a legally qualified practitioner:

(*a*) Has ceased to possess or does not possess the qualifications in respect of which he was registered; or

(*b*) Has been convicted of any felony or misdemeanour; or

(*c*) Has been guilty of infamous conduct in a professional respect, it is lawful for the Board to remove such person's name from the Register.

Persons whose names have been removed under these provisions, have the right to appeal to the Supreme Court and such appeal takes the form of a rehearing. In the case of a charge of infamous conduct in a professional respect the Board makes due inquiry sitting as an open court and the person charged has an opportunity of defence either in person or by counsel.

Any person found guilty of making false statements in examination before the Board or with regard to either the fact of registration or the certificates produced for registration purposes is guilty of a misdemeanour and may be imprisoned with or without hard labour for any period up to three years. It is clear that these provisions give the Medical Board wide and ample power.

In Western Australia the *Medical Act* of 1894 is very effective. The name of any person registered under the Act, who before or after registration is convicted of any felony or misdemeanour or of any other offence which in the opinion of the Board renders him unfit to practise, or who after due inquiry is adjudged by the Board to have been guilty of infamous conduct in a professional respect, shall be erased from the Register. No mention is made of any right to appeal. Further, any person who falsifies the Register or presents false documents or is guilty of personation or makes a false declaration or false statement or falsely advertises himself as a practitioner is liable, upon conviction, to be imprisoned for any term not exceeding three years.

According to the Victorian Act a person forging or obtaining a certificate under false representation or falsely admitting or publishing himself as having obtained such a certificate, is guilty of a misdemeanour and is liable to imprisonment with or without hard labour for any period not exceeding three years. No mention is made in the Act of the power or otherwise of the Board to erase from the Register the name of a person who has been found guilty of infamous conduct in a professional respect.

In South Australia the name of a person may be removed from the Register for reasons very similar to those obtaining in New South Wales. Here, however, the removal is effected by order of the Supreme Court or a Judge thereof on application by motion made in that behalf by the Board or Registrar. The Supreme Court has the power of restoring the erased name by order, if it so determine.

The Queensland *Medical Act* dates from 1867. Under this Act the Medical Board has no power of dealing with a registered practitioner who is guilty of a felony or misdemeanour. Any prosecution arising from such an offence would have to be undertaken by the State under the *Criminal Code Act* and would have to be tried in the Criminal Court.

In Tasmania the name of a person may be removed from the Register by an order of the Supreme Court or Judge thereof, on application by summons taken out in that behalf by the Medical Council, for fraud, felony or misdemeanour or infamous conduct in any professional respect. The name may subsequently be restored by order of the Supreme Court if the Court so determine and any person whose name has been removed, has the right of appeal to the Full Court. Tasmanian legislature has, however, distinguished itself by putting on the statute books legislation of a most extraordinary nature. We have drawn attention on previous occasions to these remarkable clauses and reproduce them again in this place for the enlightenment of practitioners. They are as follows:

> If any registered medical practitioner in active practice without reasonable excuse (the proof of such reasonable excuse being upon him) refuses or fails to consult with or render professional assistance, in consultation, to any other registered medical practitioner seeking such advice or assistance, he shall be guilty of an offence and shall on conviction forfeit and pay for each offence a penalty of not less than fifty pounds nor more than two hundred pounds.
>
> The foregoing expression "reasonable excuse" shall not include any resolution or by-law or any agree-

ment of any company, association or body of persons whatsoever, whether verbal or written.

The registered medical practitioner seeking any such advice or assistance as hereinbefore mentioned shall in every case be legally liable to pay to the registered medical practitioner rendering such advice or assistance a fair and reasonable fee (including expenses, if any, therefor) and shall if requested to do so, pay such fee in advance.

Any person, association, company or body of persons who directly or indirectly prevent or endeavour to prevent or aid in preventing in any way whatsoever any medical practitioner, nurse or other person applying for, accepting or holding any appointment or position in any State-aided hospital or charitable institution, shall be guilty of an offence and shall on conviction forfeit and pay for each offence a penalty of not less than twenty-five pounds nor more than two hundred pounds.

Statistics of the Medical Profession.

SINCE one issue in each year has been devoted to the education of medical practitioners, interpreted in its widest sense, a chapter has been devoted to the numerical strength of the profession. It is important that parents and guardians as well as young men and women should be informed of the relative size of the profession in relation to the community before medicine is chosen by the latter as a calling. Last year the figures were handled for us by a statistician who employed special methods to reduce the errors that were disturbing the records of previous years. Formerly the medical registers were full of inaccuracies. The names of persons long dead were retained; no adequate steps were taken to verify the addresses of living practitioners, so that many names were entered with an address in one State, while the individual concerned was actually living in another State and his name appeared also in the register of the other State. Pains have been taken to render the medical registers in the several States much more reliable and it is safe to accept the information contained in them as approximately correct.

The following table reveals the present position as compared with the position a year ago.

NUMBER OF MEDICAL PRACTITIONERS RESIDENT IN EACH STATE OF AUSTRALIA.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Commonwealth.
1924 ..	1,815	1,481	461	388	214	143	4,502
1925 ..	1,920	1,571	501	394	230	157	4,773

The increase during the four years from 1920 to 1924 in the whole Commonwealth averaged about 3.1% It will be seen that the increase from 1924 to 1925 has been 6%. In New South Wales it was 5.78% and in Victoria 6%.

While the growth of the medical profession yields information of a comparative value, the more crucial test of the presence or absence of overcrowding is the numerical relation of the practitioners to the general population. On January 1, 1925, the approximate number of people to each doctor in the Commonwealth was 1,223. In 1918 it was 1,355 and in 1921 it was 1,307. The following figures show the position in each of the States in 1925. In New South Wales there are 1,166 people to each doctor. In Victoria there are 1,050 people to each doctor. In Queensland there are 1,664 people to each doctor. In South Australia there are 1,347 people to each doctor. In Western Australia there are 1,584 people to each doctor. In Tasmania there are 1,400 people to each doctor. It thus appears that in Western Australia and in Queensland, the two most sparsely populated States, each doctor has to look after the largest number of people, while in Victoria and in New South Wales, the most densely populated, the number of persons per doctor is the smallest. It must, however, be remembered that in Melbourne and in Sydney the number of specialists and whole-time medical officers of public and industrial bodies is greater than in the capital cities in other States. If it were possible to ascertain the number of general practitioners, it would probably be found that the average number of persons in the community corresponding to each one would be about two thousand and that outside the large metropolitan and suburban areas the figures would not vary to a great extent. There is definite evidence of a gradual diminution of the number of potential patients to each medical practitioner.

The Public Services.

PUBLIC HEALTH SERVICES.

COMMONWEALTH OF AUSTRALIA.

THE total number of medical practitioners permanently employed in the Commonwealth Department of Health is thirty-four.

Personnel and Duties.

The administration of the Department is controlled by the Director-General of Health who is also Director of Quarantine, at a salary of £1,500 *per annum*. There are also four Chief Quarantine Officers who receive salaries within the limits of £950 *per annum* minimum and £1,150 maximum, with increments of £50 *per annum* at the discretion of the Director-General. A Chief Quarantine Officer is responsible for the administration of the *Quarantine Act* and other functions of the Department of Health within his State. There is one permanent position in each of the States of Queensland, New South Wales, Victoria and Western Australia. The Chief Quarantine Officers in Queensland and Victoria are also the Directors of the Divisions of Tropical Hygiene and Marine Hygiene respectively. The positions of Chief Quarantine Officer in South Australia and Tasmania are part-time only.

All new appointments to the grade of Chief Quarantine Officer involve the possession of the Diploma of Public Health.

There are nine positions of Quarantine Officer at a commencing salary of £656 *per annum* advancing to £848 *per annum*. The positions carry appointments at various places around the coast, transfers being effected so as to prevent unduly long residence at a position in the tropical zone.

The principal duties of quarantine officers are the medical inspection of passengers and crews of inward bound oversea ships, medical inspection of seamen suffering from infective diseases and also in regard to the provisions of the *Navigation and Seamen's Compensation Acts*.

There are also nine positions of medical officer for duty in the various district health laboratories established by the Department at Bendigo, Lismore, Toowoomba, Rockhampton, Townsville, Port Pirie, Kalgoorlie, Rabaul and Royal Park. The range of salary is the same as that of quarantine officers. Appointees to these positions receive a course of training at the Commonwealth Serum Laboratories to fit them for the special duties to be undertaken, such as pathological examinations, examinations of foodstuffs, water and sewage. The medical officers at Bendigo and Kalgoorlie are also trained in X-ray work.

The remaining positions are those connected with the Division of Industrial Hygiene which deals with occupational diseases and industrial welfare generally, with the Australian Institute of Tropical Medicine at Townsville, with the medical examination of appointees to the Public Service and applicants for extended sick leave and with medical officers employed in the compilation of publications or on relieving duties.

Conditions of Service.

The conditions of service are those prescribed by the *Public Service Act* and Regulations and the *Quarantine Act*.

Medical practitioners on entering the services of the Department are required to be between the ages of twenty-five and thirty-five years. They must also have had a reasonably good university career. Subsequent advancement within the Department is dependent upon the possession of a Diploma of Public Health and on definite evidence of administrative ability and of devotion to duty.

For the medical positions in the Laboratories Division laboratory experience and evidence of special capability for this class of work are required.

Contribution to the Superannuation Fund is made compulsory under the *Superannuation Act*, 1922-1924, and deductions are made fortnightly from salary due. The amount of pension payable under the Act is dependent upon the number of units for which contribution is made and this again is determined by the salary group which includes the annual rate received by the officer. For example, a medical officer appointed at £656 *per annum* comes within the salary group £624 to £676 which requires contribution for a twelve unit pension, namely £312 *per annum*. The fortnightly contribution will depend upon the age next birthday, thus a medical officer entering the Department at age twenty-five would be required to contribute at the rate of £1 0s. 5d. per fortnight for a pension of £312 *per annum* payable at sixty-five years of age or £1 4s. 6d. per fortnight for the same amount at sixty years of age. In the event of death before retirement one half pension is payable to a widow and £13 *per annum* for each child until the age of sixteen years.

New South Wales.

In New South Wales the control of the Public Health Service is exercised by the Board of Health consisting partly of medical practitioners and partly of laymen. The members of the Board are nominated by the Government. The President of the Board is a government official and a permanent head of the Department of Public Health. The ministerial head, the Minister of Public Health, has a seat in the Cabinet and is responsible to Parliament for his Department.

The medical officers of the Department of Public Health of New South Wales are twelve in number. The Director-General of Public Health controls the medical department of the Public Service. He is responsible for the medical examination of candidates for admission to the service and for retirement on the grounds of ill health, for police and gaol work, for the medical care of aboriginals and for the administration of State hospitals and public vaccination. He also controls the Government Analyst's Branch and the State Microbiological Laboratory. He receives a salary of £1,242 *per annum*. Several other medical officers are attached directly to the head office of the Department. The Senior Medical Officer of Health receives a salary of £1,000 *per annum* and the Assistant Medical Officer of Health receives £780 a year. The Government Medical Officer of Health for the Combined Metropolitan Districts receives £872 *per annum*. Several medical officers are attached to the Microbiological Laboratory. The Principal Microbiologist receives £975, the Assistant Microbiologist receives £750 and the Second Assistant Microbiologist £600 *per annum*. For admission to the bacteriological staff it is desirable that candidates produce evidence of having undergone some special bacteriological training. The Medical Officer for Industrial Hygiene receives £800 *per annum*. Several other medical practitioners are under direct control of the Department, but serve in municipal areas. Thus the Medical Officer of Health for the Hunter River District receives £800 *per annum*. The Government Medical Officer for Sydney receives £1,130, the Second Government Medical Officer for Sydney receives £780 and the Third Government Medical Officer for Sydney £750 *per annum*.

These positions are permanent and are made under the *Public Health Act*. Among the medical officers of health and the administrative staff a

diploma in public health is required. Medical officers of the Department are contributors under the State *Superannuation Act*, 1916-1918.

Victoria.

The posts available under the Public Health Service of Victoria are as follows:

The Chief Health Officer of the Public Health Department of Victoria is also Chairman of the Commission of Public Health and Permanent Head of the Department of Public Health. He receives a salary of £1,000 *per annum*.

The District Health Officers attached to the Department are six in number. They are required to keep themselves at all times properly informed as to the public health and sanitary circumstances of the areas to which they are appointed and to make such inquiries, inspection and investigations as are necessary for that purpose. They must investigate, report and advise in regard to outbreaks of infectious disease, the sanitary administration of municipal districts and sanitary matters generally. In addition they have to perform such duties in connexion with the medical inspection and promotion of health of school children as are prescribed, to advise and assist medical officers of health and inspectors of councils, to carry out such medical work as may be required in relation to any departmental hospital, clinic or sanatorium, to perform such duties as are imposed by or conferred under the *Health Acts* and such other duties as are required by the Chief Health Officer or the Commission of Public Health.

The following qualifications are necessary for appointment as district health officer. The appointee must be a medical practitioner registered in Victoria. He must hold a degree or diploma in public health. He must have had experience in general practice. He must have had practical experience in public health work and his age must not exceed forty years.

The district health officers must reside at such places in their districts as are required by the Commission of Public Health and they are subject to removal from one district to another.

The appointment is made on probation for the period of six months.

The district health officer of the Central Area has general charge of food inspection, meat supervision and is registrar of the Midwives Board.

The salary of district health officers ranges from £700 to £850 *per annum*.

Three assistant health officers are attached to the Department. One gives his assistance to the district health officer of the Central Area. One has general control of infectious disease. He is tuberculosis officer and carries out investigations in industrial hygiene. One is occupied solely with venereal disease. The salary of assistant health officers ranges from £700 to £750 *per annum*.

No medical officer is eligible for appointment to the permanent service unless he holds a degree or a diploma of public health. All appointments are made in accordance with the regulations of the Public Service. No pension or superannuation arrangements are made. Life insurance is compulsory and members of the service may be required to retire at the age of sixty years.

Queensland.

The administration of public health legislation in Queensland is vested in a Central Board of Health under the ministerial control of the Chief Secretary. Four whole-time and thirteen part-time medical officers are employed. The Commissioner of Public Health is charged with the administration of the *Health Act* and with control of the Department of Public Health. He receives a salary of £950 *per annum*. A health officer is appointed at a salary of £850 *per annum*. He is called upon to assist the Commissioner, to investigate and control infectious disease and so forth and to visit the Peel Island Lazarette every week. The Director of the Laboratory of Microbiology is appointed at a salary of £800 *per annum*. This position is at present vacant. The holder of this post has general supervision of the laboratory and of the microscopical examination of pathological specimens. A part-time medical officer is appointed in connexion with the Central Tuberculosis Bureau. He receives a salary of £200 *per annum* and examines patients and determines their suitability for sanatorium or other treatment.

In regard to the control of venereal diseases a medical officer is appointed in Brisbane at a salary of £850 *per annum* to control venereal disease clinics and attend prostitutes in a special hospital. The part-time medical officer is also appointed in Brisbane at a salary of £150 *per annum*. It is his duty to attend every week to the examination of prostitutes. In other towns part-time appointments are made and these medical officers are called upon to control venereal disease clinics and to conduct examination of prostitutes. The medical officers at Ayr, Bundaberg, Cairns, Charters Towers, Innisfail, Ingham, Mackay, Rockhampton, Toowoomba and Townsville each receive £50 *per annum* for part-time service. The medical officer at Longreach receives £25 *per annum* and the medical officer at Bowen receives the sum of one guinea for each examination made. It is regarded as essential that the service rendered shall be to the satisfaction of the Governor-in-Council.

There are no special allowances or pensions, but medical officers may take advantage of the Public Service Superannuation Fund. This fund provides a retiring allowance of £50 to £200 *per annum* on retiring at the age of sixty-five years, insurance of £200 to £800 at death and an incapacity allowance of £50 to £100 *per annum* in the event of being compelled to retire owing to ill health before reaching the age of sixty-five years. The rates of subscription to the fund for maximum benefits vary from £1 6s. per month for an officer joining at sixteen years of age to £36 7s. per month for an officer joining at sixty years of age.

South Australia.

The health administration in South Australia is founded on the principle of local government with a central authority. The State is divided into districts each of which has its municipal or its district council as a local board of health. In sparsely populated areas the Central Board of Health has sole administration. The Central Board consists of the Chairman, who is permanent head of the Department and of four members. Two of these are permanent members and are appointed by the Governor, two are elected for two years, one by the city and suburban local boards and the other by the remaining boards.

One medical practitioner only is employed in the Department. He is known as Permanent Head of the Department of Public Health and Chairman of the Central Board of Health. He is chairman of the advisory committee under the *Food and Drugs Act*. He is also vaccination officer and city coroner. His duties comprise the management of the Department and the administration of legislation dealing with health, food and drugs. His remuneration is £900 *per annum* for all duties and he has no superannuation allowance.

Western Australia.

The full-time medical practitioners of the Department of Public Health of Western Australia are four in number.

The Commissioner of Public Health and Principal Medical Officer is charged with the administration of the *Health Act*, some twenty-five government hospitals, a sanatorium for tuberculous patients, a maternity hospital and training school and two homes for the aged and with the financial supervision of some thirty-seven assisted or subsidized hospitals. He is also Chairman of the Pure Foods and Drugs Board, the Nurses' Registration Board and the Midwives' Registration Board. His salary ranges from £960 to £1,200 *per annum*.

The Medical Officer of Health is the assistant and deputy of the Commissioner of Public Health and Principal Medical Officer. His salary ranges from £636 to £804 *per annum*.

The Bacteriologist and Pathologist is in charge of the laboratory attached to the Department of Public Health. He carries out the bacteriological work connected with the Department and all pathological and bacteriological work required by medical practitioners and hospitals with the exception of the Perth Hospital. This institution has now appointed its own pathologist. His salary ranges from £636 to £804 *per annum*.

The Medical Officer for Schools is attached to the Department of Public Health. Reference is made to this officer under the heading "School Medical Services."

Tasmania.

There is one medical practitioner attached to the Department of Public Health in Tasmania. His title is "Director of Public Health" and the general nature of his duties comprise the administration of the *Public Health Act, Venereal Diseases Act, Food and Drugs Act, Places of Public Entertainment Act, Hospitals Act* and Child Welfare and Bush Nursing Schemes. He also fills the position of Chief Quarantine Officer and administers the Commonwealth *Quarantine Act* in the State. The Director is also Chairman of the Midwives' Registration Board, Mental Deficiency Board and Indeterminate Sentences Board. He is also permanent head of the Mental Diseases Hospital.

The conditions of service of the Director of Public Health are governed by the *Public Service Act* and Regulations framed thereunder. If under the age of thirty-two years this official is required to join the Public Service Superannuation Fund and to pay monthly contributions towards the same. Should he resign prior to the retiring age, the total amount of his contributions is refunded.

The rate of remuneration of the Director of Public Health is £900 to £1,100 *per annum*.

School Medical Services.

New South Wales.

The school medical service in New South Wales forms a separate branch of the Department of Public Instruction under a medical head, the Principal Medical Officer, who is directly responsible to the permanent head of the Department.

Its activities cover the whole State, every school being visited and every child examined once every three years. To carry out this policy a staff of eight medical officers, four men and four women, work in the extrametropolitan areas and eight medical officers work in Sydney, three men and five women. In addition two male medical officers carry out ophthalmic treatment principally refraction and eyelid work in sparsely settled districts. The total staff thus numbers nineteen including the Principal Medical Officer. The chief duties of junior and senior school medical officers is the medical examination of school children in order to notify to the parents remediable defects, defects which interfere with health and development and educational progress.

A sanitary inspection is made of the school building and playground and meetings are held for parents on matters dealing with the health of children. Special surveys are being made on the crippled and the mentally defective. After a preliminary selection of very retarded pupils by the teacher the school medical officer makes a psychological investigation including the application of the Binet test. All this work is done in school hours and at the school and an average number of forty to forty-five children is seen every day.

In Sydney four officers undertake special work such as (i.) the examination, physical and mental, of delinquents brought before the Children's Court, (ii.) the health supervision of girls and (iii.) of

boys, (iv.) lectures on hygiene to students at the Teachers' College and their health supervision.

In rural areas the chief special work is that of the ophthalmic specialists, while the work of women officers is chiefly confined to the railway towns.

The salaries on entrance are £418 to £582 per *annum* for men and £444 to £494 *per annum* for women. Senior men receive £642 and senior women £550 *per annum*. "Specialist" men receive £750 to £800 and women £576 *per annum*.

A sum of £180 *per annum* is paid as "travelling" expenses to officers while working in the country to meet hotel costs. The expense of travelling is, of course, defrayed by the Department.

The schools are open only forty-two weeks (two hundred and ten days) in the year. The work is very concentrated, but the vacations are liberal. Only in exceptional circumstances are medical officers allotted any work in vacations. The attempt to gather children together while schools are closed, is as a rule a waste of time.

Every officer must join in the superannuation scheme with its assurance of a fairly adequate pension. The rate depends on the age at entrance and so contributions vary a great deal, being below £20 *per annum* for those under the age of thirty and over £60 for those over the age of forty.

The definite hours, well defined scope of work, absence of night work, liberal vacations and other privileges make these appointments much more valuable than the salary attached would appear to warrant.

To the practitioner well trained in children's work and interested in diagnosis these posts appear to prove quite attractive.

Victoria.

The medical staff of the Victorian Education Department consists of eight medical officers who are known as school medical officers. Their duties comprise the examination of children attending schools under the control of the Department. In addition they examine the children of one or two Roman Catholic schools each year. They report on any defects or special conditions found. They examine teachers on entrance to the public service and on taking sick leave and they give lectures on hygiene and physiology.

School medical officers are appointed under the *Public Service Acts* and unless specially exempted by the Governor-in-Council must retire at sixty-five years of age. There is at present no scheme of superannuation, but officers are required to assure their lives.

For the purposes of salaries the officers are graded into four classes. Officers of Class A receive a minimum of £689 and a maximum of £728 *per annum*. Officers of Class B receive a minimum of £611 and a maximum of £637, while officers of Classes C and D receive a minimum of £520 and a maximum of £585 *per annum*.

South Australia.

It is with much satisfaction that we record considerable advance in the medical inspection of school children in South Australia. Until quite recently this work was in the hands of one medical officer. The staff has been considerably enlarged and South Australia at the present time can boast of a very efficient school medical service.

There are six medical practitioners on the staff of the medical branch of the Education Department. These include one Principal Medical Officer and five medical inspectors of schools; one of these is a man and five are women.

The duties of the Principal Medical Officer are largely administrative. Lectures are given to students at the Teachers' College and students are examined on entrance to the College. The Principal Medical Officer devotes much time to the question of infectious disease in schools.

The medical inspectors of schools undertake the examination of children attending the public schools. The examination consists of weighing and measuring the children, recording the chest expansion, testing the sight and hearing, examining chest, back for curvature, the nose, throat and teeth. The condition of the body generally, the cleanliness and clothing are noted.

A history is taken of previous illnesses. The whole of the examination is done by the doctors with the assistance of the school nurses who are all certificated. The teachers take no part in the examination. The medical officers report to the parents on the special forms all defects noted in the examination. They address parents' meetings. They report on the hygienic condition of the school and premises as regards lighting, ventilation and overcrowding. They visit schools if necessary, in connexion with outbreaks of infectious diseases. The school medical officers do not visit the homes.

In addition the male medical inspector examines the male students on entrance to the Teachers' College.

The medical practitioners are civil servants and have the option of joining either the Public Service Superannuation Fund or the Teachers' Superannuation Fund.

The Principal Medical Officer receives £650 *per annum*. The male Medical Inspector of Schools receives £525 *per annum*. The female medical inspectors of schools receive an annual salary of £450 which is increased to £510 by annual increments of £18. A maintenance allowance at the rate of twelve shillings and six pence is allowed when the medical officers are on duty in the country. All travelling expenses are paid by the Department.

Western Australia.

The Medical Officer for Schools is attached to the Department of Public Health, Western Australia. This officer carries out the medical inspection of school children in the metropolitan area of Perth.

The conditions of service include the passing of a medical examination of physical fitness, six months' appointment on probation and the holding of a life insurance policy which must be uninvolved and equal to one year's salary. She is entitled to sick leave on a definite scale and to fourteen days' leave *per annum*. No pension or superannuation is available. The salary attached to the position ranges from £504 to £600 *per annum*.

TASMANIA.

In the medical branch of the Education Department of Tasmania four medical practitioners are employed. Two of them devote the whole of their time to the service of the Department and two are part-time officers. The latter are employed in the cities of Hobart and Launceston, while the former visit the schools in the suburban and rural districts. Their duties consist chiefly of the medical inspection of school children. In the case of the full-time officer with headquarters at Hobart there are also included the medical examination of students in the Teachers' College and the delivery to the students of a course of lectures in elementary anatomy and physiology and school hygiene.

It is compulsory for those entering the Department before they reach their thirty-second year and upon a satisfactory medical report to become subscribers to the superannuation fund. The amount of contribution is proportionate to the salary. Upon reaching the age of sixty-five years in the case of males and sixty years in the case of females, an annuity for life is granted if the officers then retire.

The salaries of the full-time medical officers range from £375 to £475 and the amount paid to the part-time officers is £75 *per annum*.

The Mental Hospital Service.

MENTION has been made in the articles dealing with the medical schools that a certain amount of training in psychiatry is included in the medical curriculum. Every general practitioner meets with insanity from time to time as he meets with other forms of disease. He meets with the milder forms of nervous and psychical disturbance very frequently and unless he has turned his attention to the study of this science, he experiences neither satisfaction nor success in this part of his practice. It is worth while to devote a considerable amount of time in the study of psychiatry, even if the practitioner does not intend to specialize in it. The subject bristles with difficulties and possesses a peculiar fascination partly on account of these difficulties. In Australia, as in all civilized countries, the State holds itself responsible for the institutional care and treatment of persons suffering from disease of the mind. There are a few private mental hospitals for persons of means. The great majority of the insane, that is of persons who are certified in accordance with legal formulæ as being incapable of managing their own affairs with reasonable care and prudence or as being unable to comport themselves in conformity with the conventions of society or as being dangerous to themselves or others by reason of their mental disease, are inmates of the public hospitals for the insane. In each State there are large institutions of this kind under Governmental control. The modern expedient of treating persons with mental diseases either as in-patients or as out-patients in general or special hospitals without certification, that is without restricting their liberty, has been introduced into Australia and is gaining favour.

NEW SOUTH WALES.

In New South Wales there are nine hospitals under the control of the department. One, that at Orange, has not yet been officially opened. In addition, there is a hospital, Broughton Hall, at which certified patients are not admitted. There is also a pathological laboratory situated within the University of Sydney. Lastly mention must be made of the three reception houses, at Darlinghurst, at Kenmore and at Newcastle. The number of certified patients in the hospitals is 8,292 and of voluntary patients 323, making a total of 8,615. The head of the service is the Inspector-General of Mental Hospitals who is responsible for the conduct of all the hospitals. The Inspector-General delegates the administration and management of each hospital to its medical superintendent. He is paid a salary of £1,500 a year. The medical superintendents of the first class are placed in charge of the five large mental hospitals and in four of these institutions there is also a deputy medical superintendent. In the smaller hospitals there are medical superintendents of the second class, practitioners whose experience in psychiatry is less extensive than that of the superintendents of the first class. The salary of the medical superintendents in the large hospitals commences at £842 and is increased to £942 by annual increments of £50. The allowance is valued at £124 a year. The salary in the smaller hospitals is £742 increasing to £792 with an allowance valued at £100 a year. The deputy medical superintendents receive a salary increasing from £742 to £792 with quarters and so on valued at £100 a year. The medical superintendents are responsible for all the patients under their care and for the management of the hospitals.

As a rule medical practitioners join the service as junior medical officers. They serve one year on probation and at the end of that period, if there is a vacancy on the staff and their service has been satisfactory, they are appointed to the permanent position. The salary starts at £358 with quarters and so on valued at £100. The salary increases to £442 when the holder is promoted to the rank of resident medical officer and it is further increased at the rate of £50 a year for two years. There are seven junior medical officers, two relieving medical officers and three senior medical

officers. The senior medical officers receive a salary of £592 rising to £692 with an allowance valued at £100 a year. At some of the large hospitals, such as the Callan Park Hospital, the patients suffer from the acuter forms of mental disease or have been under care for a short time. In these hospitals the number of medical officers is three, four or five. At the smaller hospitals in which the patients are suffering from the chronic forms of insanity, there is only one. The total number of medical officers at the hospitals is twenty-five; this number does not include the Inspector-General or the Director of the Pathological Laboratory. The medical officers are whole-time officers and are required to devote their time and attention to the special treatment of the patients suffering from the various nervous and mental diseases. This treatment includes that of any physical ailments from which the patients may be suffering. They are expected to take an interest in the advancement of the scientific side of psychiatry and as far as is possible to carry out original work. They are required to undertake minor surgery when required. When a major operation is necessary, the patient is transferred to a general public hospital.

The Director of the Pathological Laboratory receives a salary of £692 with allowances valued at £50 a year. He conducts original research work and also the diagnostic work for the patients in the hospitals.

All the permanent medical officers of the department are required to contribute to a superannuation fund. The rate of contribution varies in accordance with the age of the officer. The Government contributes an equal amount. The pension of £312 a year becomes payable when the officer attains the age of sixty years or if he breaks down in the performance of his duties, after having served for ten years. At the death of an officer a pension of £156 a year is paid to his widow with an addition of £13 a year for each child under the age of sixteen years.

Victoria.

The Lunacy Department in Victoria has control of mental hospitals at Kew, Yarra Bend, Mont Park, Ararat, Beechworth, Sunbury, Ballarat and Royal Park. The total number of beds in these institutions is 5,635. Of these seventy are attached to the two reception houses, fifty are reserved for the criminal insane, one hundred and thirty are reserved for ex-soldiers and three hundred and seventy are for mentally defective children. The whole service is in the hands of the Inspector-General of the Insane. At the present time the Yarra Bend Hospital is under the same medical superintendence as the Kew Hospital for the Insane. It will shortly be closed. Medical practitioners joining the service start as junior medical officers in Class *C* and *B*. The salary attaching to the positions is £516, rising in two stages to £552 *per annum*. A deduction of £60 a year is made for rent, fuel, light, water, vegetables, milk and laundry and a deduction of £14 a year is made for rations. Junior medical officers are provided with partly furnished quarters. On promotion to the rank of senior medical officer, the salary is increased to £600, with two annual increments of £25 each. The salary is subject to a charge of £72 a year for rent, fuel, light, water, vegetables, milk and laundry. These officers are in Class *B*. There is one junior and one senior medical officer at the Kew Hospital for the Insane, at the Sunbury Hospital for the Insane and at the Royal Park Mental Hospital. There is a junior medical officer, but no senior at the Yarra Bend institution and at the Hospital at Ararat; there are two junior medical officers in the civil part of the Mont Park Hospital for the Insane. At the hospitals at Ballarat, at the military section of the Mont Park institution and at the Children's Hospital at Kew there is one senior medical officer, but no junior medical officer. It will thus be seen that there are eight junior and six senior medical officers. There are seven medical superintendents, each of whom is in full administrative charge of a particular institution. The salary of the medical superintendents is £750, increasing to £900 a year. There is a charge of £100 a year for rent, fuel, light, water, vegetables, milk and laundry. A pathologist is engaged by the department and has his laboratories at Kew. His status is the same as that of the senior medical officers. In addition to these officers there is a whole-time dentist who visits Royal Park, Kew, Sunbury and Mont Park. He takes equal rank with a junior medical officer. His salary starts at £516 and rises to £552 in two instalments. His salary is not subject to any deductions. Lastly there is a dispenser who receives from £324 to £348 a year, subject to a deduction of £50 a year for quarters and allowances. There are at present no arrangements for superannuation or pension.

Queensland.

There are in Queensland three mental hospitals comprising the institutions of the State for the insane. In addition, there is a reception house at Townsville. The service differs from those of New South Wales and Victoria in that the Inspector of Asylums is the Medical Superintendent at one of the mental hospitals, that at Goodna, and has no central office for administrative purposes. All the patients under the control of the service are certified. Voluntary patients are received into the mental ward of the Brisbane Hospital. They remain there as long as it is unnecessary or inexpedient to certify them as insane. Their relation to the Brisbane Hospital is the same as that of the other patients. This ward is not under the control of the Inspector of Asylums.

The total number of medical officers in the service is seven. At Goodna there is a medical superintendent and three assistant medical superintendents. At Toowoomba there is a medical superintendent and one assistant medical superintendent. At Ipswich there is one medical superintendent. The duties of the medical superintendents consist mainly of administrative work;

those of the assistant medical superintendents consist of ordinary medical care of patients and treatment.

The medical officers are appointed on probation for six months. After satisfactory probation their appointment is confirmed. The appointments are made under the provisions of the *Public Service Act*, 1922. The medical officers may contribute voluntarily to the superannuation fund to secure sums up to £800 at death, £200 annuity on retiring at the age of sixty-five, £100 incapacity allowance. The incapacity allowance is payable only after the officer has exhausted all the sick leave with pay and half pay for which his service makes him eligible.

The salary of the Inspector of Asylums, including the remuneration as medical superintendent of the Goodna Hospital for the Insane is fixed at £850, rising to £1,100. The medical superintendent at Toowoomba is paid from £650 to £850, while the medical superintendent at Ipswich is paid from £575 to £750. The first assistant medical superintendent receives from £575 to £750 at Goodna and from £500 to £650 at Toowoomba. The second assistant medical superintendent receives from £500 to £650. The third assistant medical superintendent is allowed to conduct private practice and receives £360 a year. All the medical officers are provided with houses and fuel, milk and garden produce is supplied free of cost.

South Australia.

The hospitals for the insane in South Australia are under the control of the Inspector-General of Hospitals who has also administrative control of all hospitals and sanatoria in the State. There are two institutions for the care of persons suffering from mental disease, the Mental Hospital at Parkside and the Receiving House at Enfield. The Medical Superintendent at Parkside is paid a salary of £800 with quarters, light and garden produce and the like. He is in administrative control of an institution with nearly fourteen hundred patients. He is assisted by a deputy medical superintendent who receives £650. This officer carries out the major part of the medical work in the institution with the aid of the junior medical officer who is paid £525 a year with allowances. At the Enfield Receiving House there is a part-time superintendent who has a salary of £360 and a deputy superintendent with a salary of £290. These officers visit the house daily and are available at call when required by the Matron. There is no resident medical officer at this institution. There is no pathologist at Parkside or elsewhere engaged in the special work of the mental hospital service. It is stated that the medical officers as a rule are not subscribers to the Public Service Superannuation Fund of South Australia.

Western Australia.

There is only one hospital for the insane in Western Australia. It is situated at Claremont. It has accommodation for just over a thousand patients. There is a staff of three medical officers. The Inspector-General of the Insane resides at the hospital. Under him there is the Medical Superintendent and one senior and one junior medical officer. The Inspector-General of the Insane has complete control of all persons certified as insane. He has a house and a living allowance and his salary is £804 a year. The Medical Superintendent also has a house and certain allowances and is paid £708 a year. The senior medical officer has a salary rising from £408 to £528 a year with board and allowances, while the junior medical officer is paid £320 a year with board and quarters.

Tasmania.

The Hospital for the Insane in Tasmania is situated at New Norfolk. It has accommodation for approximately six hundred patients. The only medical officer at this institution is the Medical Superintendent who has the administrative as well as the medical control. He is given a house, certain allowances, including fuel and light, and a salary starting at £657 a year.

The Defence Medical Services.

Medical practitioners have the duties of ordinary citizens and in addition their special training imposes a further responsibility toward their country. In the time of national emergency every medical practitioner should be at the disposal of the naval, military or air force authorities. Exemption should be a matter to be determined by those appointed to organize and control the services, whether it be on account of physical disability or advancing age. In time of peace every medical practitioner should endeavour to identify himself with one of the three branches of the defence medical services. The Government is short-sighted in allowing these services to return to their skeleton formation of pre-war days. It is impossible to attain a high degree of efficiency on a voluntary basis at short notice and without previous experience and training.

The Naval Medical Service.

The Royal Australian Navy has a small medical service. The medical officers on joining must produce evidence that they are between the ages of twenty-one and thirty-eight years, that they are British born, that they are registered or entitled to be registered as medical practitioners in one of the Australian States and that they are of good character.

The candidate serves for twelve months as Surgeon-Lieutenant on probation with pay at the rate of twenty-eight shillings a day with five shillings deferred pay. He serves for two years at the same remuneration after his appointment has been confirmed and then his pay is increased to thirty-two shillings a day and five shillings and nine pence deferred pay. After six years' service he is due for promotion to the rank of Surgeon-Lieutenant Com-

mander, provided that he has spent two years at sea. The pay is then increased to thirty-eight shillings a day and six shillings and six pence deferred pay. At the end of nine years' service, provided that the officer is promoted at the end of six years, the pay is increased to forty-three shillings a day with seven shillngs deferred pay.

Promotion to the rank of Surgeon-Commander is conditioned by the following record. The officer must have served for twelve years in the Navy and must have had duty for two years at sea with the rank of Surgeon-Lieutenant Commander; he must show that he has not refused service except for reasons acceptable to the Naval Board; he must have passed the prescribed examination and he must have been recommended for promotion by the Director of Naval Medical Services. The pay is then increased to forty-eight shillings a day and eight shillings deferred pay. At the end of fifteen, eighteen and twenty-one years' service his pay is increased to fifty-two, fifty-six and sixty shillings respectively and his deferred pay to eight shillings and eight pence, nine shillings and four pence and ten shillings respectively. The rank of Surgeon-Captain carries with it pay starting at sixty-five shillings and reaching four pounds a day. The deferred pay reaches its maximum of eleven shillings and three pence after twenty-four years' service. If the officer joins at the age of twenty-one years and obtains promotion in standard time, he attains the rank of Surgeon-Captain at the age of forty-six years. At the age of fifty-five years he should be drawing £1,470 a year and have nearly £5,000 accumulated as deferred pay. The deferred pay is available on retirement or at death. In addition to the rate of pay the officer receives an allowance for uniform, ration allowance when on leave and lodging allowance under certain conditions.

The Army Medical Service.

There has been but little change in the organization and details of the Australian Army Medical Corps since we published a special article on this subject by the Director-General of Army Medical Services on May 6, 1922.

Owing to the reduction in the strength of the Australian Military Forces the scheme for the education of medical students in military subjects has been abandoned.

The permanent staff of the Australian Army Medical Corps comprises the Director-General, one part-time Assistant Director of Hygiene, six part-time Deputy Directors of Medical Services and one hundred and twenty-three medical officers of the regimental establishments. There is no longer a medical officer in charge of permanent troops at Maribyrnong.

The Deputy Directors of Medical Services receive remuneration according to the size of the military district to which they are appointed. In the largest district he receives £500 and in the smallest £200. The medical officers attached to the Light Horse Regiments number twenty-three; those attached to the Field Artillery number seventeen; those attached to the Infantry Regiments number sixty-two and those attached to the defended ports number twenty-one. There are six medical officers attached to the Light Horse Field Ambulances and seventeen attached to the Field Ambulances. In the Sanitary Section there are nine medical officers. The Area Medical Officers are part-time officers and receive remuneration at the rate of £85 *per annum*. The pay in the Australian Army Medical Corps is limited to the number of days' service. Trainees holding the rank of Lieutenant receive fifteen shillings a day with a maximum of twelve pounds a year; Captains receive twenty-two shillings and six pence a day with a maximum of eighteen pounds a year; Majors receive thirty shillings a day with a maximum of twenty-four pounds a year; Lieutenant-Colonels receive thirty-seven shillings and six pence a day with a maximum of thirty pounds a year. The training comprises eight continuous days and eight whole and half days for parades.

The Air Force Medical Service.

The candidate for admission to the medical branch of the Royal Australian Air Force must be under twenty-eight years of age. He must pass a physical examination for fitness and must demonstrate his ability to tolerate high altitudes; he must possess rapid reaction times; he must have a sound vestibular sense and a good ocular muscle balance. He must be of European descent and of British parentage. The ranks are: Flying Officer, Flight Lieutenant, Squadron Leader, Wing Commander and Group Officer. The remuneration is approximately the same as that of the Royal Australian Naval Medical Service.

Medical Students' Societies.

Although the medical student is reputed to be the leader of most of the delightful and irresponsible nonsense associated with undergraduate life of the present day, this is but one side of his nature. Most students and indeed most men are endowed, as J. M. Barrie says he is, with a McConnachie—an unruly half. McConnachie has on occasions to be held in check, but life without him would be a very dull affair. Barry says: "Beware of McConnachie. . . . You will all have your McConnachies luring you off the high road. Unless you are constantly on the watch you will find that he has slowly pushed you out of yourself and taken your place." This is very true, but who would be without him? Happy is the man who can give just enough rein to McConnachie and who can apply the curb when necessary. McConnachie would probably tell a first year "med" that a students' medical society was sheer waste of time.

Barry in the wisdom of his years would say: "No! Join your society and make McConnachie an honorary member."

Medical students' societies are a training ground for activities in later life. They are an antidote for orthodoxy and a stimulus for personal im-

provement. If taken seriously they tend to produce in student life what the Germans call a *Stimmung*—a right atmosphere and a correspondingly correct attitude of mind. McConnachie has ample scope for his activities in the production of students' journals. Many will recall, some with regret, days when McConnachie sat in the editorial chair of *The Speculum*. Rumour had it that sedate members of Senate and heads of colleges were amongst those who grieved most at his deposition. He raises his head occasionally "blistered and fomented" in *The Sydney University Medical Journal* and we welcome his temporary appearance.

The medical school in each of the Australian universities can boast of a flourishing students' society.

The Sydney University Medical Society owes its origin to the late Thomas Anderson Stuart. It was in 1886 that Anderson Stuart conceived the idea of providing a meeting ground for teachers, graduates and undergraduates. Meetings are held regularly, papers are read and discussion follows. *The Sydney University Medical Journal* was published first in 1904 and appears once in each term. Prior to 1921 this journal was produced by an editorial staff which included graduates. Since that date it has been brought out by an editor and two assistants, all of whom are undergraduates. The journal is a credit to all concerned, particularly in view of the fact that no editor holds office for more than one year. All graduates and undergraduates of the Medical School are eligible for membership of the Society. Membership is also open to any medical practitioner whose qualifications are recognized by the University of Sydney. The membership subscription for senior undergraduates is seven shillings and sixpence and for junior undergraduates five shillings *per annum*. Graduates may become life members on the payment of one guinea and on payment of another guinea they receive the journal for four years.

The Medical Society of the University of Melbourne was likewise founded to promote a better understanding between students, to serve as a means for advancing their knowledge and to further their interests generally. *The Speculum* as the journal of the Society admirably serves its needs. The subscription is five shillings a year. Any member of the Society or qualified practitioner who pays the sum of five guineas, may be enrolled as a life member by a vote of the members at the annual meeting. The President and Vice-President are required to be members of the Victorian Branch of the British Medical Association.

The Adelaide Medical Students' Society was founded in 1889 "to further the interests of medical work amongst students and to provide intercourse amongst its members." Membership is open to undergraduates who pay ten shillings a year and to graduates of the University of Adelaide or other recognized university who pay five shillings a year. Three guineas will secure life membership. *The Adelaide Medical Students' Review* is the official organ of the Society.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester United Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIAN: Honorary Secretary, 12, North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

JUNE 23.—New South Wales Branch, B.M.A.: Medical Politics Committee: Organization and Science Committee.
JUNE 24.—Victorian Branch, B.M.A.: Council.
JUNE 25.—New South Wales Branch, B.M.A.: Branch.
JUNE 25.—South Australian Branch, B.M.A.: Branch.
JUNE 26.—Queensland Branch, B.M.A.: Council.
JUNE 27.—Eastern District Medical Association, New South Wales.
JULY 1.—Victorian Branch, B.M.A.: Branch.
JULY 3.—Queensland Branch, B.M.A.: Branch.
JULY 7.—New South Wales Branch, B.M.A.: Council (Quarterly).
JULY 7.—Tasmanian Branch, B.M.A.: Council.
JULY 9.—Victorian Branch, B.M.A.: Council.
JULY 9.—South Australian Branch, B.M.A.: Council.
JULY 9.—New South Wales Branch, B.M.A.: Clinical Meeting.
JULY 10.—Western Australian Branch, B.M.A.: Council.
JULY 10.—Queensland Branch, B.M.A.: Council.
JULY 14.—Tasmanian Branch, B.M.A.: Branch.
JULY 14.—New South Wales Branch, B.M.A.: Ethics Committee.
JULY 15.—Western Australian Branch, B.M.A.: Branch.
JULY 16.—Section of Neurology and Psychiatry, New South Wales Branch, B.M.A..

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, Sydney. (Telephones: MW 2651-2.)

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